

Medium to large trees suitable for city environment plantings



Species: *Acer campestre*

(ay'ser kam-pess'tree)

Hedge Maple

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 25' - 35'
 Leaves: Deciduous
 Shape: round
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: Known to naturalize or become invasive in some areas
 CU Structural Soil™: Yes

Insect Disease

Relatively pest free

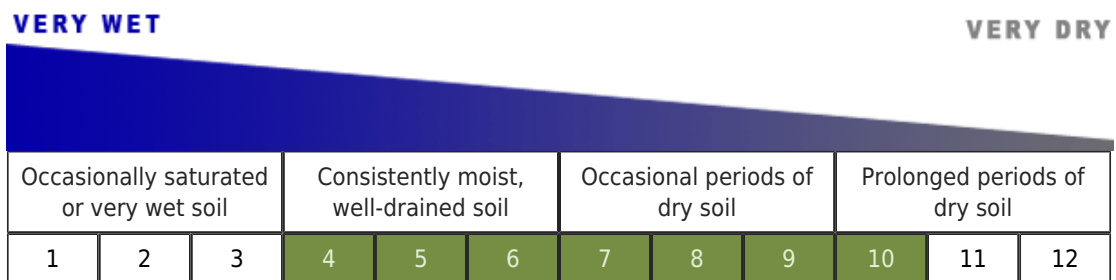
Bare Root Transplanting

Easy

Other

Native to Europe, Middle East and North Africa.

Moisture Tolerance



Cultivars for *Acer campestre*

Showing 1-17 of 17 items.

Cultivar Name	Notes
Carnival	'Carnival' - variegated foliage
Elegant	'Elegant' - compact, ascending habit; vigorous uniform growth
Elsrijk	'Elsrijk' - narrow crown, mildew-resistant
Evenley Red	'Evenley Red' - superior red fall color
Field Maple	'Field Maple' - more uniform habit than species
Jade Patina	'Jade Patina' - dark green leaves, more deeply indented than species; exceptional cold tolerance, not affected by frost cracking
Louisa Red Shine	'Louisa Red Shine' - leaves emerge red and fade to reddish-green
Metro Gold	'Metro Gold' (a.k.a. Panacek) - superior gold fall foliage; upright, narrow form; tighter shape than 'Queen Elizabeth'
Queen Elizabeth	'Queen Elizabeth' - more upright, vigorous, Japanese beetle resistant [zone 6b - 7b]
Nanum	'Nanum' (a.k.a. Compactum) - semi-dwarf, dense compact, bulbous habit; often grafted on a standard trunk
Postelense	'Postelense' - foliage emerges yellow and matures to green
Pulverentum	'Pulverentum' - variegated foliage
Royal Ruby	'Royal Ruby' - new foliage is purplish-red
Schichtel's Upright	'Schichtel's Upright' - upright habit
Schwerinii	new purple foliage that turns green
St. Gregory	vigorous; pyramidal growth with strong central leader; new foliage reddish-green that turns to a rich dark green
William Caldwell	fastigiate shape, foliage turns orange / red in autumn where planted on acid soils, not yellow as with species

Photos



Acer campestre - Habit, Fall Interest



Acer campestre - Leaves



Acer campestre - Leaves



Acer campestre - Habit



Acer campestre - Habit



Acer campestre - Habit



Acer campestre - Fruit



Acer campestre - Leaves



Acer campestre - Buds



Species: *Acer miyabei*

(ay'ser mi-YA-bee-eye)

Miyabe Maple

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 35'-45', Width: 30'
 Leaves: Deciduous
 Shape: upright oval to rounded, can have open or dense branching, low branching
 Ornamental Other: prefers full sun, tolerates partial shade

Environmental Characteristics

Light: Full sun, Part shade
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 CU Structural Soil™: Yes

Insect Disease

none of significance

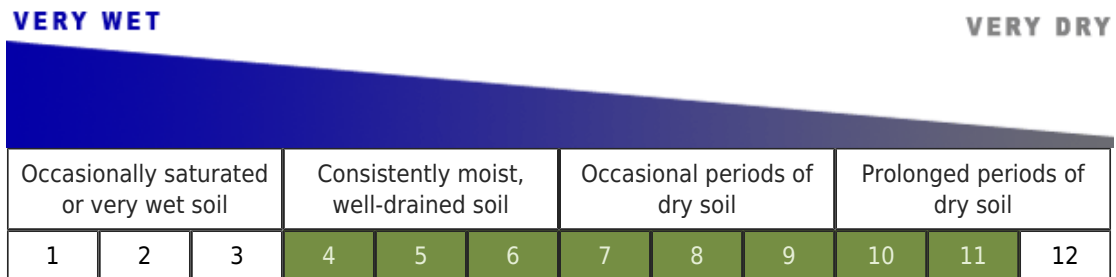
Bare Root Transplanting

Easy

Other

easy to transplant B&B or < 2 1/2 caliper bare root

Moisture Tolerance



Cultivars for *Acer miyabei*

Showing **1-2** of **2** items.

Cultivar Name	Notes
Rugged Ridge	'Rugged Ridge' - more deeply furrowed corky bark than species
State Street	'State Street' (a.k.a. Morton) - hardy to zone 4; upright oval form; good uniform branching; dark green foliage; good golden yellow fall color; possibly fast growing

Photos



Acer miyabei trunk



Acer miyabei foliage



Acer miyabei habit



Acer miyabei - Bark



Acer miyabei - Leaf



Acer miyabei - Habit



Species: *Acer rubrum*

(ay'ser rue'brum)

Red Maple; Scarlet Maple; Swamp Maple

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 60'
 Leaves: Deciduous
 Shape: Shape varies widely by variety. Generally upright with a rounded crown, however many columnar varieties exist.
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salt spray

Insect Disease

verticillium wilt can be a problem

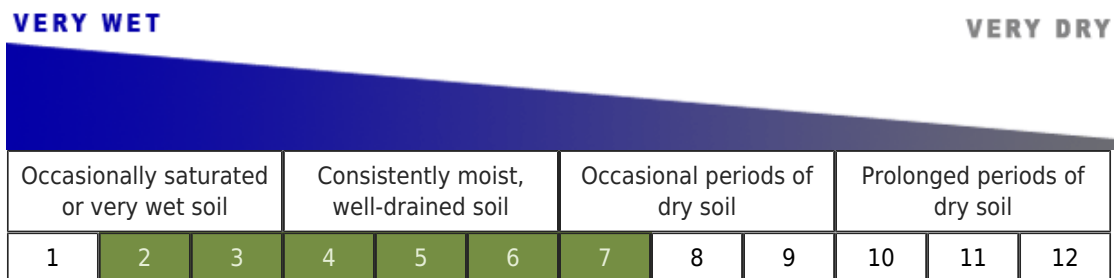
Bare Root Transplanting

Easy

Other

Native to North America (Newfoundland to Minnesota, south to Florida and Texas). Best transplanted in spring. Often seen as a wet site tolerant tree, however upland genotypes exist. Wetland genotypes are more commonly selected from in the trade as they tend to be more vigorous. Upland genotypes are more drought tolerant but tend to be slow-growing.

Moisture Tolerance



Cultivars for *Acer rubrum*

Showing 1-12 of 12 items.

Cultivar Name	Notes
Autumn Flame	'Autumn Flame' - early, persistent red fall color, zone 3b
Brandywine	'Brandywine' - red to red-purple fall color; foliage stays on tree for up to 14 days after fall color change
Northwood	'Northwood' - good orange-red fall color, zone 3b
October Glory	'October Glory' - excellent red fall color, zone 5a
Red Skin	'Red Skin' - large, thick foliage, early reddish maroon fall color, zone 4
Red Sunset	'Red Sunset' (a.k.a. Franksred)- excellent orange to red fall color, zone 4
Bowhall	'Bowhall' - orange fall color
Karpick	'Karpick' - dense, red twigs, yellow or red fall color
Armstrong	'Armstrong' - fast-growing; yellow, orange, red fall color
Armstrong Gold	'Armstrong Gold' - selected from seedlings of 'Armstrong', improves greatly on the parent; grows to 40' tall x 12' wide; narrow, tightly fastigate form; brighter foliage color; greater foliage density and compact; less leggy growth habit
Redpointe	'Redpointe' (a.k.a. Frank Jr.) - grows to 45' high x 30' wide; broadly pyramidal form; brilliant red fall color; faster growth rate; straight and dominant central leader
Scarlet Sentinel	'Scarlet Sentinel' - grow to 40' tall x 20' wide; upright, narrow habit; oval to rectangular form; yellow-orange to orange-red fall color; very summer heat tolerant

Photos



Acer rubrum chlorotic foliage



Acer rubrum - Bark



Acer rubrum - Buds



Acer rubrum - Leaves, Fall Interest



Acer rubrum - Flowers



Acer rubrum - Leaves, Fall Interest



Acer rubrum - Leaf



Acer rubrum - Flowers



Acer rubrum - Flowers, Seeds



Species: *Acer saccharum*

(ay'ser sak-kar'um)

Sugar Maple; Rock Maple; Hard Maple

Cultivar Information

Large tree except for '**Sugar Cone**', which is a dwarf , <30'.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 60' - 75' (spread variable), some cultivars less than 30'
 Leaves: Deciduous
 Shape: upright oval to mounded; dense foliage
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: Intolerant of compacted soil and urban stresses.

Insect Disease

few problems unless sited too close to roads and highways; leaf scorch and verticillium wilt; dieback under stress

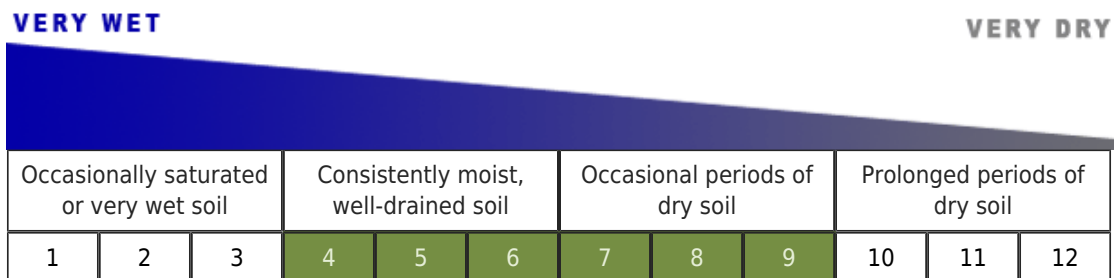
Bare Root Transplanting

Easy

Other

native to North America (eastern Canada south to Texas); easy to transplant; sap is boiled down to make maple syrup

Moisture Tolerance



Cultivars for *Acer saccharum*

Showing 1-14 of 14 items.

Cultivar Name	Notes
Adirondak	'Adirondak' (a.k.a.'Adizam') - columnar; turns Golden-Orange and holds late
Bonfire	'Bonfire' - broadly oval, vigorous, bright orange fall foliage
Commemoration	'Commemoration' - oval form; orange-gold in fall; leaves slow to drop
Endowment	'Endowment' - columnar form; bright yellow fall color
Goldspire	'Goldspire' - narrowly pyramidal; foliage turns golden in fall
Legacy	'Legacy' - glossy, thick leaves; drought resistant
Majesty	'Majesty' - large thick leaves; thick branching structure
Seneca Chief	'Seneca Chief' - Muscle like bark
Sugar Cone	'Sugar Cone' slow growing, dwarf (<30') with tight conical canopy, looks like a cartoon-tree when mature
Apollo	'Apollo' (a.k.a. 'Barrett Cole') - semi-dwarf; grows to 30' tall x 10' wide; narrow, columnar form; yellow-orange to red fall color; resistant to Japanese beetle
Autumn Fest	'Autumn Fest' - grows to 50' tall x 35' wide; upright oval form; it is faster growing with a more upright shape than typical of sugar maples
Belle Tower	'Belle Tower' (a.k.a. 'Reba') - grows to 45' tall x 18' wide; columnar oval form; orange-yellow form; Japanese beetle resistant; adapted to heat and humidity
Flashfire	'Flashfire' - grows to 45' tall x 40' wide; broadly oval form; bright red early fall color bearing Sugar Maple for the South; improved mildew resistance
Green Mountain	Oval to round form, 50'-60' feet tall. Vigorous growth with leathery dark green leaves and mixture of red and yellow fall color. Zone 4.

Photos



Acer saccharum 'Sugar Cone'



Acer saccharum - Flowers



Acer saccharum - Bark



Acer saccharum - Habit, Fall Interest



Acer saccharum - Leaf



Acer saccharum - Habit



Acer saccharum - Habit



Acer saccharum - Leaves, Bark



Acer saccharum - Buds



Species: *Acer x freemanii*

Freeman Maple

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height:
 Leaves: Deciduous
 Shape:
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Insect Disease

No diseases listed

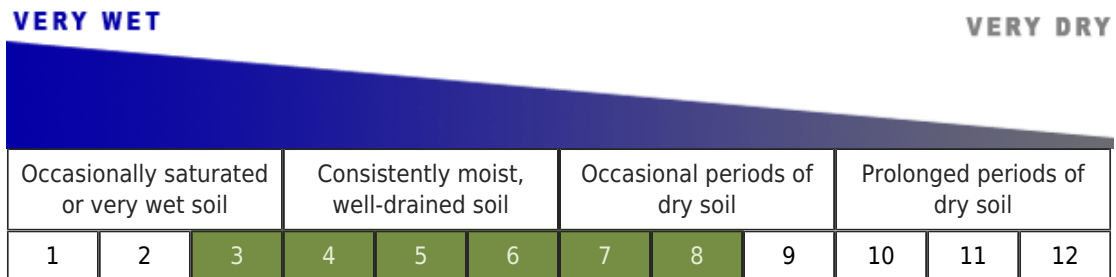
Bare Root Transplanting

Easy

Other

A naturally occurring or nurseryman encouraged hybrid between *Acer rubrum* and *Acer saccharinum*. Shares the qualities of both parents variably. Generally has the smooth silvery bark and good red fall color of *A. rubrum*, more incised leaves like *A. saccharinum*. Generally less prone to breaking than *A. saccharinum*.

Moisture Tolerance



Cultivars for *Acer x freemanii*Showing **1-9** of **9** items.

Cultivar Name	Notes
Armstong	'Armstong' - columnar form
Autumn Blaze	'Autumn Blaze' (a.k.a. Jeffersred) - broad , oval form
Autumn Fantasy	'Autumn Fantasy' fast growing; produces good fall color even in warmer climates
Celebration	'Celebration' (a.k.a. 'Celzam') - pyramidal form
Firefall	'Firefall' - deeply cut foliage, exceptional cold hardiness; bright red fall color
Marmo	'Marmo' - broad, columnar form
Morgan	'Morgan' - Broad open habit
Sienna Glen	'Sienna Glen' - strong central leader; pyramidal form
Scarlet Sentinel	Oval upright form half as wide as tall with ascending branches. Height 50', width 25'. Red or yellow fall color. Zone 4.

Photos



Acer x freemanii - Buds



Acer x freemanii - Leaves, Fall Interest



Acer x freemanii - Leaves, Fall Interest



Acer x freemanii - Habit, Fall Interest



Acer x freemanii - Habit



Acer x freemanii - Habit, Fall Interest



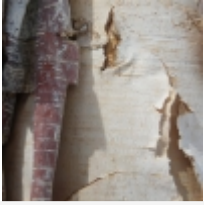
Acer x freemanii - Bark



Acer x freemanii - Habit



Acer x freemanii - Leaf



Species: *Betula nigra*

(bet'yoo-lah nye'grah)

River Birch; Red Birch

Cultivar Information

Most *Betula nigra* cultivars are medium to large trees **except for 'Fox Valley'** which is a dwarf tree approximately 15' tall.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 40' - 70' (spread 40' - 60')
 Leaves: Deciduous
 Shape: pyramidal-oval to rounded
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: Medium to fast growth. best in consistently moist acid soil

Insect Disease

resistant to bronze birch borer; leaf spot can cause defoliation; susceptible to leaf miner

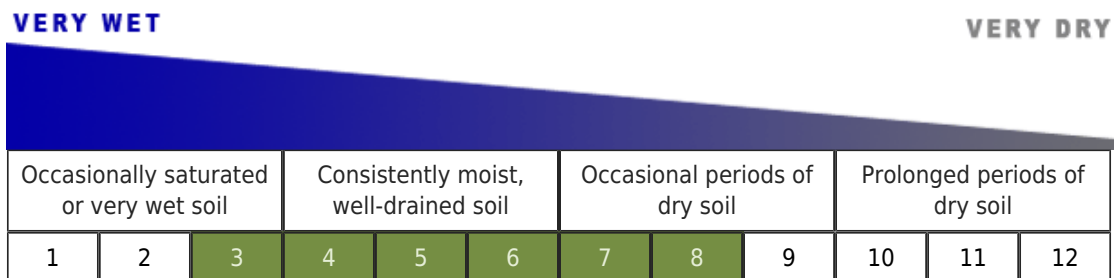
Bare Root Transplanting

Moderately difficult

Other

native to US, from Massachusetts south to Florida, west to Kansas and Minnesota

Moisture Tolerance



Cultivars for *Betula nigra*Showing **1-9** of **9** items.

Cultivar Name	Notes
City Slicker	'City Slicker' - vigorous; drought tolerant; white bark
Dura-Heat	'Dura-Heat' - closely spaced leaves; cold hardy
Graceful Arms	'Graceful Arms' - semi-weeping form
Heritage	'Heritage' (a.k.a. Cully) - superior; vigorous; salmon bark
Shiloh Splash	'Shiloh Splash' - white variegated foliage
Summer Cascade	'Summer Cascade' - Weeping; semi-dwarf, 6-8' tall and wide
Suwanee	'Suwanee' - more lustrous leaves; salmon white bark
Tecumseh Compact	'Tecumseh Compact' - shrubby form with graceful semi-arching branches
Fox Valley	'Fox Valley' (a.k.a 'Little King) - dwarf,dense & compact with branches to the ground

Photos



Betula nigra - Bark



Betula nigra - Bark



Betula nigra - Habit



Betula nigra Fruit ED



Betula nigra - Habit



Betula nigra - Leaf



Betula nigra - Leaves



Betula nigra - Habit



Betula nigra - Bud



Species: *Betula populifolia*

(bet'you-lah pop-ue-li-fo'lee-ah)

Gray Birch; Poplar Birch; Old Field Birch; Poverty Birch; White Birch

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 20' - 40' (spread 10' - 20')
 Leaves: Deciduous
 Shape: irregular narrow open form; usually multi-stem but can be single
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Environmental Other: Adaptable to variety of soils (sand, rocky, gravel and heavy).

Insect Disease

leaf miner; cankers; bronze birch borer; chlorosis in high pH soils

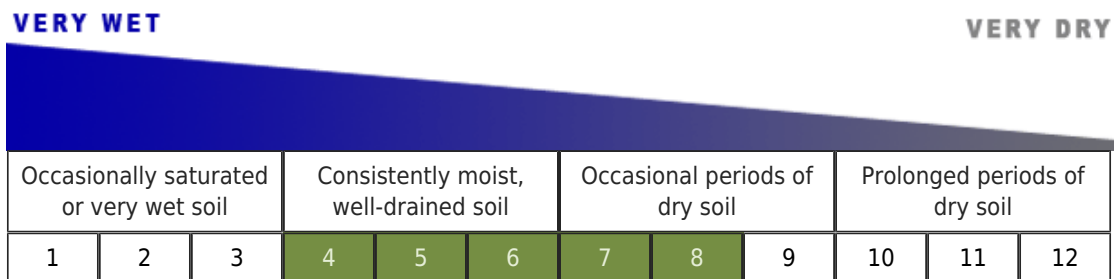
Bare Root Transplanting

Moderately difficult

Other

native to North America, from Nova Scotia to Ontario, south to Delaware; transplant B & B in spring; good for naturalizing in difficult sites

Moisture Tolerance



Cultivars for *Betula populifolia*Showing **1-2** of **2** items.

Cultivar Name	Notes
Whitespire	'Whitespire' - inaccurately identified as a selection of <i>Betula platyphylla</i> var. <i>japonica</i> when it was first released; has resistance to bronze birch borer
Royal Frost	<i>Betula populifolia</i> x Whitespire 'Royal Frost' - hybrid between <i>Betula platyphylla</i> x <i>B. pendula purpurea</i> 'Crimson Frost' and <i>Betula populifolia</i> 'Whitespire'; deep burgundy foliage; resistant to birch borer

Photos



Betula populifolia - Bark



Betula populifolia - Leaf



Betula populifolia - Habit



Betula populifolia - Bark



Betula populifolia - Habit



Betula populifolia - Catkin



Betula populifolia - Buds, Catkin



Betula populifolia - Bark



Betula populifolia - Bud



Species: *Carpinus betulus*

(kar-pine'us bet'you-lus)

European Hornbeam

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 60' (30' - 40' spread)
 Leaves: Deciduous
 Shape: pyramidal/rounded to oval/rounded
 Ornamental Other: best in full sun; will tolerate light to moderate shade; tolerant of difficult conditions

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: dark green foliage to yellow-green in fall; can be pruned into hedging; smooth dark grey bark is similar to beech bark
 CU Structural Soil™: Yes

Insect Disease

relatively trouble free; may suffer from ice damage

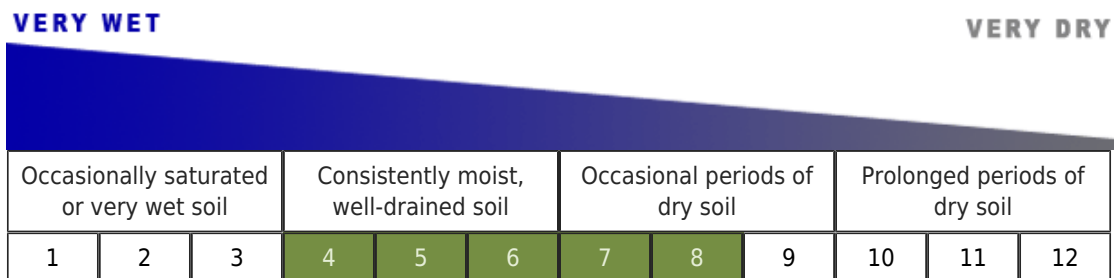
Bare Root Transplanting

Difficult

Other

transplant as small B & B or containerized tree in spring, Native to Europe

Moisture Tolerance



Cultivars for *Carpinus betulus*Showing **1-11** of **11** items.

Cultivar Name	Notes
Asplenifolia	'Asplenifolia' ('Heterophylla', 'Incisa', 'Quercifolia') - leaves double toothed; incised; lobe-like
Brownstone	'Brownstone' - upright-oval
Columnaris	'Columnaris' - densely branched, columnar
Columnaris Nana	'Columnaris Nana' - semi-fastigiata dwarf; 4' tall x 1.5' wide in 10 years
Cornerstone	'Cornerstone' - round-headed; notably dark green foliage; superior heat-tolerance
Emerald Avenue	'Emerald Avenue' - broadly pyramidal; superior heat-tolerance; 40' tall x 28' wide
Fastigiata	'Fastigiata' - oval-vase shape
Franz Fontaine	'Franz Fontaine' - fastigiata form
Globosa	'Globosa' - rounded
Pendula	'Pendula' - pendulous branches
Purpurea	'Purpurea' - new foliage purple, fading to green

Photos



Carpinus betulus - Leaf



Carpinus betulus - Fruit



Carpinus betulus - Habit



Carpinus betulus 'Fastigiata' - Habit



Carpinus betulus 'Fastigiata' - Habit



Carpinus betulus 'Fastigiata' - Habit



Carpinus betulus - Bark



Carpinus betulus - Leaf



Carpinus betulus - Habit



Species: *Catalpa speciosa*

(kah-tal'pah spee-see-oh'sah)

Catalpa; Indian Bean

Cultivar Information

Both the straight species and these cultivars are rare in the trade, this is a genus which deserves greater use and selection.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 60' (20' - 40' spread)
 Leaves: Deciduous
 Shape: open, irregular, oval crown
 Ornamental Other: sun or part-shade; fast growth in moist site.

Environmental Characteristics

Light: Full sun, Part shade
 Hardy To Zone: 4a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: sun or part-shade; fast growth in moist site.
 CU Structural Soil™: Yes

Insect Disease

No diseases listed

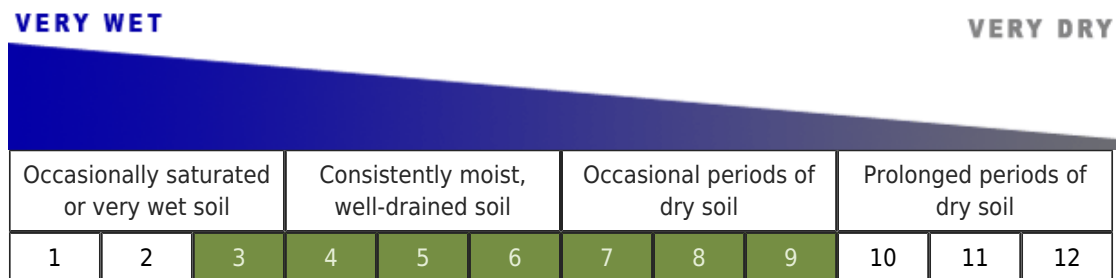
Bare Root Transplanting

Easy

Other

transplant B & B or bare root as a small tree, native to Northern and Central Midwestern US.

Moisture Tolerance



Cultivars for *Catalpa speciosa*

Showing **1-6** of **6** items.

Cultivar Name	Notes
Pulverulenta	'Pulverulenta' - <i>C. speciosa</i> cultivar; odd speckled variegation on leaves
Purpurea	<i>C. x erubescens</i> 'Purpurea' - new foliage emerges purple
Aurea	<i>C. bignonioides</i> cultivar; chartreuse foliage
Koehnei	'Koehnei' - <i>C. bignonioides</i> cultivar; yellow variegated foliage
Nana	'Nana' - <i>C. bignonioides</i> cultivar; round-crowned dwarf
Variegata	'Variegata' - variegated foliage

Photos



flower close-up



Catalpa speciosa - Bark



Catalpa speciosa - Leaves, Flowers



Catalpa speciosa - Flowers



Catalpa speciosa - Leaves



Catalpa speciosa - Habit



Catalpa speciosa - Habit



Catalpa speciosa - Habit



Catalpa speciosa - Fruit



Species: *Celtis occidentalis*

(sel'tis ok-si-den-ta'lis)

Hackberry; Sugarberry

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 60'
 Leaves: Deciduous
 Shape: pyramidal when young; open, irregular when mature
 Ornamental Other: tolerates light shade, wind, heat

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: dark green, leathery leaves
 CU Structural Soil™: Yes

Insect Disease

may develop witches' broom

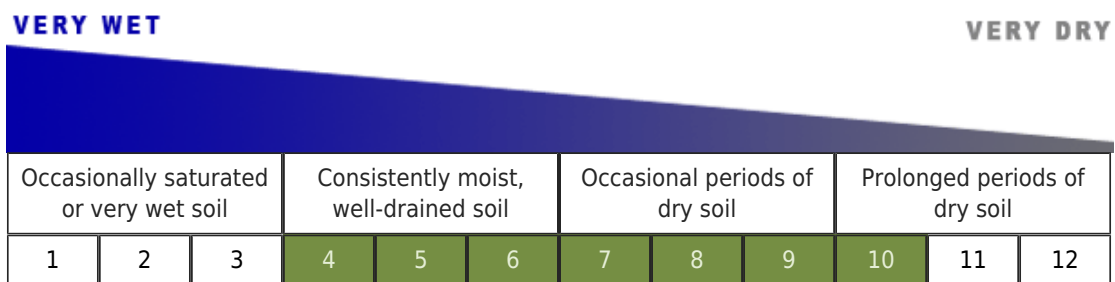
Bare Root Transplanting

Moderately difficult

Other

transplant in spring; somewhat slow to establish, native to Eastern and Midwestern N. America.

Moisture Tolerance



Cultivars for *Celtis occidentalis*

Showing 1-7 of 7 items.

Cultivar Name	Notes
Chicagoland	'Chicagoland' - notably straight trunk; particularly resistant to wind damage
Prairie Pride	'Prairie Pride' (rapid compact grower, thick leathery foliage)
Prairie Sentinel	'Prairie Sentinel' - columnar form; 45' tall x 12' wide
Windy City	'Windy City' - similar to 'Chicagoland'
Golden Phoenix	<i>C. julianae</i> 'Golden Phoenix' (a.k.a. Jinye) - one of two other <i>Celtis</i> varieties are not currently common in the trade but may become important in the coming years; an asian species similar to <i>C. occidentalis</i> ; chartreuse leaved variety
<i>Celtis x magnifica</i>	<i>Celtis x magnifica</i> - cross between <i>C. occidentalis</i> and <i>C. laevigata</i> ; more resistant to witch's broom and hackberry nipple gall psyllid than either parent; grows to 50' x 40'
<i>C. tenuifolia</i>	<i>C. tenuifolia</i> - one of two other <i>Celtis</i> varieties are not currently common in the trade but may become important in the coming years; dwarf species similar to <i>C. occidentalis</i> ; single stem or multistem; grows to only 12 -15'; similar broad cultural tolerances of <i>C. occidentalis</i>

Photos



Celtis occidentalis in CU-Soil



Celtis occidentalis - Leaves, Fall Interest



Celtis occidentalis - Leaves



Celtis occidentalis - Habit



Celtis occidentalis - Bark



Celtis occidentalis - Bark



Celtis occidentalis - Leaves



Celtis occidentalis - Leaf Galls



Celtis occidentalis - Habit



Species: *Cercidiphyllum japonicum*

(ser-si-di-fil'um ja-pon'i-kum)

Katsuratree; Katsura Tree

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 80'
 Leaves: Deciduous
 Shape: round, upright
 Ornamental Other: New leaves bright red when unfolding; good yellow or yellow-peach fall color. In autumn as leaves turn color they give off a scent like cotton candy in the sun. leaves have cotton candy. May be clump or low branched single stem.

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: Tolerates light shade; protected site best. Requires moisture. Not drought tolerant

Insect Disease

relatively pest free

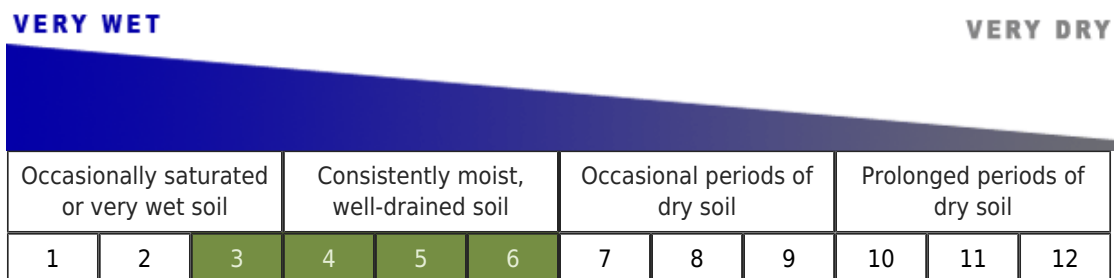
Bare Root Transplanting

Moderately difficult

Other

native to China and Japan; transplant in spring or fall

Moisture Tolerance



Cultivars for *Cercidiphyllum japonicum*Showing **1-4** of **4** items.

Cultivar Name	Notes
f. pendula Morioka Weeping	f. pendula 'Morioka Weeping', 'Amazing Grace', 'Tidal Wave' - weeping forms
Heronwood Globe	'Heronwood Globe' - dwarf; tight, globular habit; to 15'
Red Fox	'Red Fox' (a.k.a. 'Rotfuchs') - spring foliage emerges purple then fades to bluish green by mid-summer
Ruby	'Ruby' - slightly smaller stature(to 30' tall); bluish-purple hue to foliage

Photos



Cercidiphyllum japonicum - Bark



Cercidiphyllum japonicum - Leaves



Cercidiphyllum japonicum - Habit, Fall Interest



Cercidiphyllum japonicum - Leaves



Cercidiphyllum japonicum - Fruit



Cercidiphyllum japonicum - Habit



Cercidiphyllum japonicum - Buds



Cercidiphyllum japonicum - Fruit



Cercidiphyllum japonicum - Spurs



Species: *Cladrastis kentukea*

(kla-dras'tis ken-tuk'ee-ah)

Yellowwood

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 30' - 50'
 Leaves: Deciduous
 Shape: round
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: showy, fragrant flowers in late spring; smooth grey bark (similar to beech bark)

Insect Disease

relatively trouble free

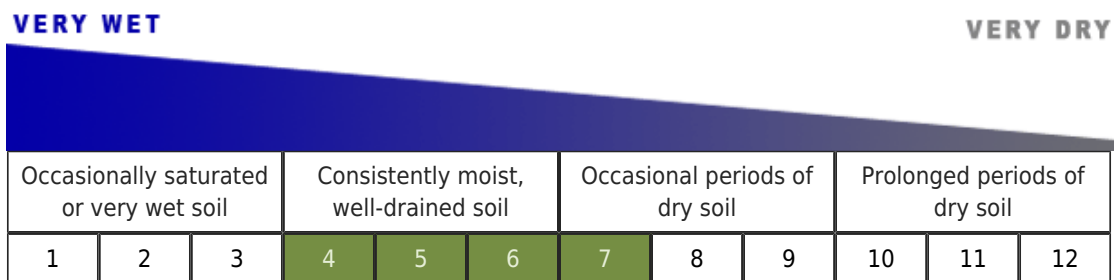
Bare Root Transplanting

Easy

Other

prune only in summer as profuse bleeding will occur at other times of the year; specify single leader; can be weak-wooded with poor crotch angles that split out as the trees grow older; transplant in spring, native to Eastern and Midwestern US.

Moisture Tolerance



Cultivars for *Cladrastis kentukea*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Perkins Pink	'Perkins Pink' (a.k.a. Rosea) - pink flowers

Photos



Cladrastis kentukea - Habit



Cladrastis kentukea - Bark



Cladrastis kentukea - Bark



Cladrastis kentukea - Leaves, Fall Interest



Cladrastis kentukea - Flowers



Cladrastis kentukea - Habit



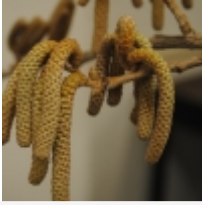
Cladrastis kentukea - Bark



Cladrastis kentukea - Flowers



Cladrastis kentukea - Flowers



Species: *Corylus colurna*

(kore'i-lus koe-lurr'nah)

Turkish Filbert; Turkish Hazel

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 70'
 Leaves: Deciduous
 Shape: pyramidal, with a strong central leader
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: tolerates heat once established
 CU Structural Soil™: Yes

Insect Disease

Eastern filbert blight may be a serious problem.

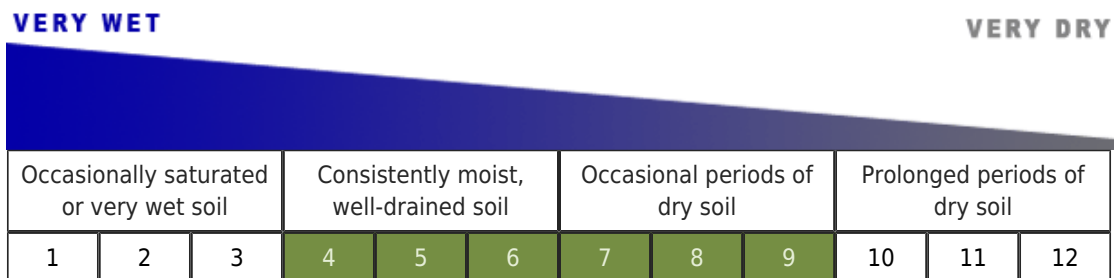
Bare Root Transplanting

Moderately difficult

Other

native to southeastern Europe and western Asia; transplant in spring B & B or containerized only; do not transplant bare root. Somewhat slow to grow after transplanting.

Moisture Tolerance



Cultivars for *Corylus colurna*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Obelisk	'Obelisk' (a.k.a. 'Scholten's Obelisk') - fastigiate habit

Photos



Corylus colurna - Bark



Corylus colurna - Leaves, Catkins



Corylus colurna - Leaves



Corylus colurna - Habit



Corylus colurna - Seed



Corylus colurna - Bark



Corylus colurna - Bark



Corylus colurna - Bark



Corylus colurna - Habit



Species: *Eucommia ulmoides*

(ue-kom'ee-ah ul-moy'deez)

Hardy Rubber Tree

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 60'
 Leaves: Deciduous
 Shape: round, wide spreading
 Ornamental Other: tolerates heat; needs full sun

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: glossy green foliage
 CU Structural Soil™: Yes

Insect Disease

pest free

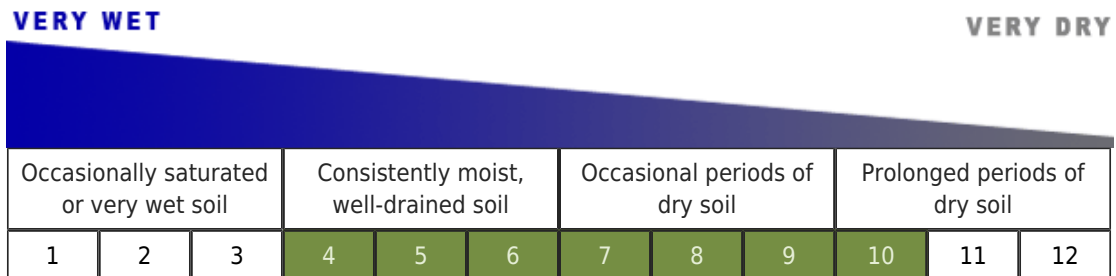
Bare Root Transplanting

Moderately difficult

Other

transplants readily in spring or fall, native to Central China

Moisture Tolerance



Photos



Eucommia ulmoides - Leaves



Eucommia ulmoides - Habit



Eucommia ulmoides - Leaves



Eucommia ulmoides - Leaf



Eucommia ulmoides - Habit



Eucommia ulmoides - Leaves



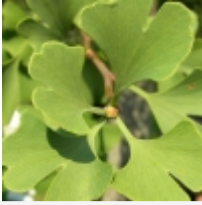
Eucommia ulmoides - Fruit



Eucommia ulmoides - Bark



Eucommia ulmoides - Habit



Species: *Ginkgo biloba*

(gingk'go bye-lo'bah)

Ginkgo; Maidenhair Tree

Cultivar Information

There are many rare cultivars (particularly dwarf varieties) of this plant, below are a few of the more readily available varieties.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 100'
 Leaves: Deciduous
 Shape: irregular when young; pyramidal with age
 Ornamental Other: Slow growing

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

pest free

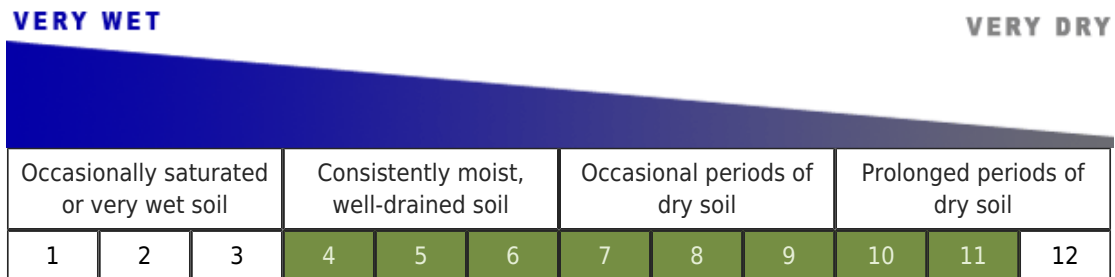
Bare Root Transplanting

Difficult

Other

Specify male trees only because of noxious fruit smell (all cultivars are male); transplant in spring or fall, B&B or container; native to China.

Moisture Tolerance



Cultivars for *Ginkgo biloba*Showing **1-13** of **13** items.

Cultivar Name	Notes
Lakeview	'Lakeview' - columnar habit
Princeton Sentry	'Princeton Sentry' - very narrow upright
Presidential Gold	'Presidential Gold' (a.k.a. 'The President') - strong central leader; full branching at a young age; dense upright crown; broadly pyramidal to oval in shape; seedless male selection turns bright yellow in the fall
Autumn Gold	'Autumn Gold' - striking golden yellow color; narrow in youth, it broadens with age to form a broadly pyramidal tree; 45' tall x 35' wide
Halka	'Halka' - slightly broader in shape than most cultivars; notably uniform with symmetrical branching; good central leader; 45' tall x 40' high; hardy through USDA Zone 4
Magyar	'Magyar' - strong upright growth; dominant central leader; faster growing with a slightly broader form than 'Princeton Sentry'; narrow, upright pyramidal form; 50' x 30' wide; hardiness is USDA Zone 3
Golden Colonnade	'Golden Colonnade' - narrow oval; semi-columnar; height of 45' spread of 25'; seedless
Jade Butterfly	'Jade Butterfly' - dwarf, slow-growing form, mature height that is less than half that of standard forms
Pendula	'Pendula' (a.k.a. f. pendula) - variable, weak weeping habit
Saratoga	'Saratoga' - strong central leader; upright, narrow habit; to 40' tall
Variegata	'Variegata' - features leaves that are irregularly streaked with yellow
Troll	'Troll' - dwarf; grows to 3' tall and wide; bushy mounding habit; can be trained as a small pyramidal tree
Tubifolia	'Tubifolia' (a.k.a. 'Tubiformis', 'Tubeleaf') - slow-growing; male form; grows to only 3-4' tall over the first five years; on younger trees, leaves typically roll inward forming tube; as trees grow older, the leaves tend to flatten out, but with a more lacinate form than species leaves; matures to 20-25' tall

Photos



Massive Ginkgo in Prospect Park ,
Brooklyn, NY



Ginkgo biloba - Bark



Ginkgo biloba - Habit, Fall Interest



Ginkgo biloba - Seeds, Leaves



Ginkgo biloba - Spur



Ginkgo biloba - Habit



Ginkgo biloba - Leaves, Bark



Ginkgo biloba - Habit



Ginkgo biloba - Leaf



Species: *Gleditsia triacanthos*

(gleh-dit'si-ah try-a-kan'thos)

Common Honeylocust; Honey Locust

Cultivar Information

The straight species of this tree posses large thorns. Most of the cultivars are selected from the var. inermis(thornless) variety. The '**Imperial**' cultivar is <30'.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 30' - 70' (variable spread), some cultivars<30'
 Leaves: Deciduous
 Shape: ovate; fine texture; graceful habit
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: Full sun and drought tolerant.
 CU Structural Soil™: Yes

Insect Disease

Overuse has created many insect problems; honeylocust plant bug, honeylocust borer, midge pod gall, webworm and spider mites

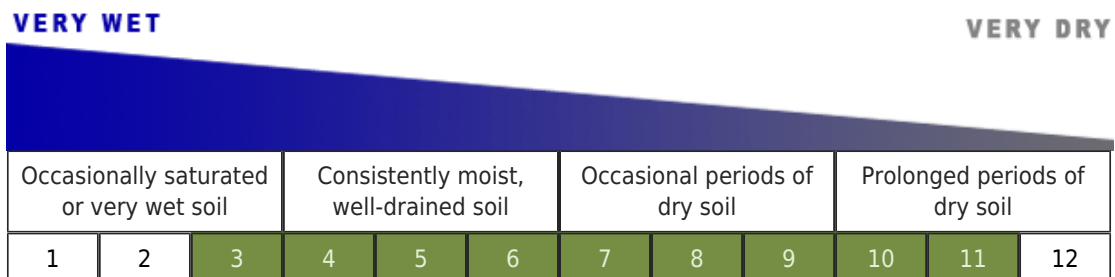
Bare Root Transplanting

Easy

Other

Native to central United States.

Moisture Tolerance



Cultivars for *Gleditsia triacanthos*

Showing 1-9 of 9 items.

Cultivar Name	Notes
Moraine	'Moraine' - graceful, umbrella-like habit; thornless
Shademaster	'Shademaster' - vase-like shape; upright, symmetrical habit; to 40' tall; produces some pods; superior drought tolerance; thornless
Skyline	'Skyline' (a.k.a. 'Skycole') - cold-hardy form; reduced fruiting; unusual upright growth habit; broadly pyramidal form; 40' tall and wide; thornless
Sunburst	'Sunburst' (a.k.a. 'Suncole') - golden yellow new foliage turns bright green; more susceptible to insect problems; thornless
var. inermis	var. inermis - thornless variety
Christie	'Christie' (a.k.a. Halka) - sturdy-trunked form; round-headed crown with less drooping branches; to 40' tall and wide; rarely fruits
Imperial	'Imperial' (a.k.a. 'Impcole') - relatively dwarf mature size; to 30' tall; compact spreading habit; produces few pods; thornless
Spectrum	'Spectrum' (a.k.a. 'Speczam') - early spring bright yellow foliage, purportedly holds its golden hue later into the season than other gold-foliaged forms; habit is rounded; to 35' tall and wide
Rubylace	'Rubylace' - bronze-red foliage

Photos



Gleditsia triacanthos - Leaves, Thorns



Gleditsia triacanthos - Bark



Gleditsia triacanthos - Fruit



Gleditsia triacanthos - Habit, Fall Interest



Gleditsia triacanthos - Bud



Gleditsia triacanthos - Leaves



Gleditsia triacanthos - Habit



Gleditsia triacanthos - Fruit



Gleditsia triacanthos - Leaves



Species: *Gymnocladus dioicus*

(jim-nok'la-dus dye-oh-ih'kus)

Kentucky Coffeetree

Cultivar Information

Cultivars of this species are almost exclusively fruitless males.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 70' - 80'
 Leaves: Deciduous
 Shape: oval, spreading
 Ornamental Other: Use of male tree eliminates fruit litter; sparse branching when young; large blue-green, doubly compound leaves.

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

pest free

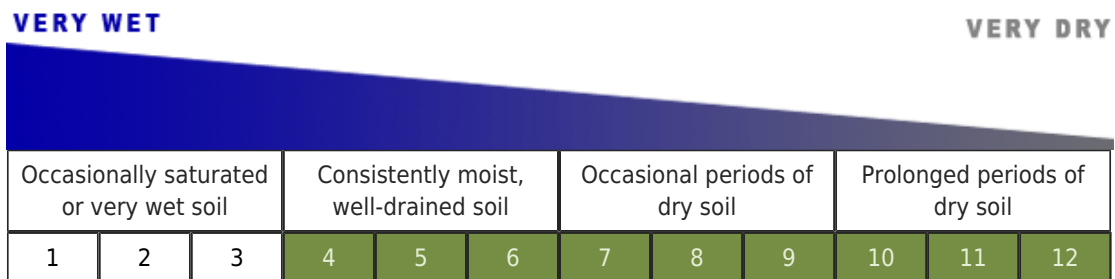
Bare Root Transplanting

Easy

Other

easy to transplant in spring or fall, native to Eastern and Midwestern US.

Moisture Tolerance



Cultivars for *Gymnocladus dioicus*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Espresso	'Espresso', 'Prairie Titan' (a.k.a. 'J.C. McDaniel'), 'Stately Manor' - male fruitless forms; otherwise not noticeably different from species

Photos



Gymnocladus dioicus - Branch



Gymnocladus dioicus - Habit



Gymnocladus dioicus - Bark



Gymnocladus dioicus - Leaves



Gymnocladus dioicus - Habit



Gymnocladus dioicus - Fruit



Gymnocladus dioicus - Habit



Gymnocladus dioicus - Habit



Gymnocladus dioicus - Mature Fruit



Species: *Liquidambar styraciflua*

(lik-wid-am'bar stye-ra-si-flu'ah)

American Sweetgum

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 70' - 100'
 Leaves: Deciduous
 Shape: pyramidal when young; round with age
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Environmental Other: Best on moist, sunny sites. May show occasional chlorosis on high pH sites.

Insect Disease

relatively pest free

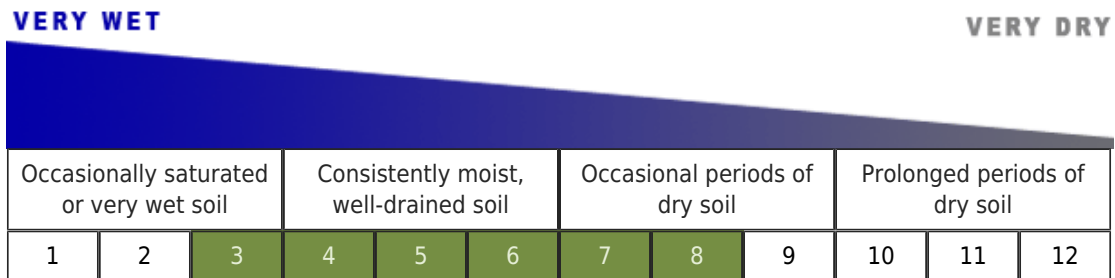
Bare Root Transplanting

Difficult

Other

native to North America (New York to Illinois, south to Florida, Texas and Mexico); northern seed source recommended; can be marginal in zone 5; transplant in spring

Moisture Tolerance



Cultivars for *Liquidambar styraciflua*

Showing 1-9 of 9 items.

Cultivar Name	Notes
Moraine	'Moraine' - most cold hardy; zone 4b, bright red fall color
Rotundiloba	'Rotundiloba' - fruitless; not as hardy - Zone 6
Grandmaster	'Grandmaster' (a.k.a. 'Grazam') - pyramidal selection; grows to 50' tall and wide; glossy green leaves that turn shades of red-purple and orange in fall
Gumball	'Gumball' - dwarf; multi-stemmed shrubby habit to 15' tall with a smaller spread; good fall color
Oconee	'Oconee' - similar to 'Gumball' but with better cold-hardiness
Variegata	'Variegata' (a.k.a. 'Aurea', 'Goduzam' [Gold Dust]) - variegated; grows to 60' tall with a narrower spread; foliage mottled with cream areas that intensify as the season progresses; oval-rounded habit; exhibits good cold-hardiness
Silver King	'Silver King' - silver margined leaves
Golden Treasure	'Golden Treasure'- yellow margined leaves.
Emerald Sentinel	'Emerald Sentinel' (a.k.a. 'Clydesform') - grows to 30' tall x 12' wide; narrowly pyramidal to columnar form; yellow orange to orange fall color

Photos



Liquidambar styraciflua - Bark



Liquidambar styraciflua - Bud



Liquidambar styraciflua - Leaves, Fall Interest



Liquidambar styraciflua - Bark



Liquidambar styraciflua - Leaves, Fall Interest



Liquidambar styraciflua - Habit



Liquidambar styraciflua - Habit, Fall Interest



Liquidambar styraciflua - Seed



Species: *Liriodendron tulipifera*

(leer-ee-o-den'dron tu-li-pif'er-ah)

Tuliptree; Tulip Poplar; Tulip Magnolia; Yellow Poplar; Whitewood

Cultivar Information

Few cultivars exist for this species and most are difficult to find in the trade.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 80' - 120'
 Leaves: Deciduous
 Shape: broad pyramidal
 Ornamental Other: Large, straight central leader, somewhat weak-wooded.

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Insect Disease

relatively pest free

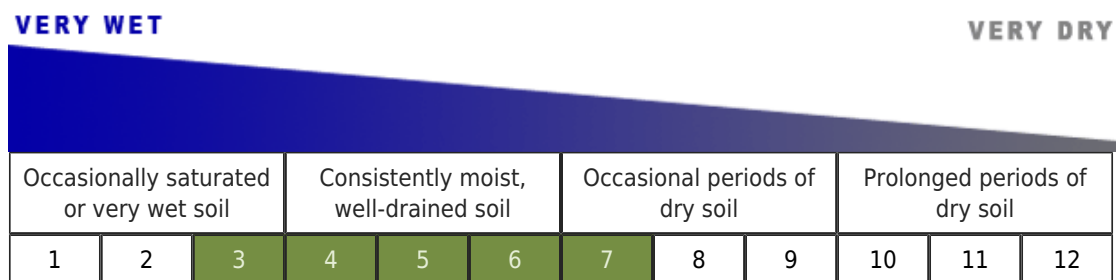
Bare Root Transplanting

Difficult

Other

native to North America (Massachusetts to Wisconsin, south to Florida and Mississippi); northern seed source recommended; difficult to transplant, transplant in spring

Moisture Tolerance



Cultivars for *Liriodendron tulipifera*

Showing 1-8 of 8 items.

Cultivar Name	Notes
Ardis	'Ardis' - compact form; smaller leaves and other features that are much reduced relative to the species
Compactum	'Compactum' - compact form; smaller leaves and other features that are much reduced relative to the species
Aureomarginatum	'Aureomarginatum' - variegated form, foliage is broadly margined with creamy-greenish yellow; grows to 80' tall; even people who don't like variegated plants often like this plant
Mediopictum	'Mediopictum' (a.k.a. 'Aureopictum') variegated form with a central yellow blotch on the foliage
Fastigiatum	'Fastigiatum' - fastigate form; grows to 60' tall with a spread of 20'
Integrifolium	'Integrifolium' (a.k.a. f. integrifolium) - bears leaves that lack lower lobes, resulting in a leaf that appears almost rectangular in shape; extremely rare in the trade
Arnold	'Arnold' - superior columnar form; fast-growing; grows to 8-12'wide x 50' tall
Emerald City	'Emerald City' - grows to 55' tall x 25' wide; upright oval form; slightly compact habit; bright clear yellow fall color; straighter and more upright than the species

Photos



Liriodendron tulipifera - Habit



Liriodendron tulipifera - Habit



Liriodendron tulipifera - Bark



Liriodendron tulipifera - Buds, Flowers



Liriodendron tulipifera - Habit, Fall Interest



Liriodendron tulipifera - Leaf



Liriodendron tulipifera - Flower



Liriodendron tulipifera - Leaves, Immature Flower



Liriodendron tulipifera - Flowers



Species: *Maclura pomifera*

(mah-klur'ah pom-if'er-ah)

Osage Orange; Boxwood

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 20' - 40' (similar spread)
 Leaves: Deciduous
 Shape: irregular crown; stiff spiny branches
 Ornamental Other: thrives in adverse conditions; tolerates extreme heat and drought once established; full sun

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salt spray
 Environmental Other: glossy green leaves turn yellow in fall; large fruit (4-6" globes)
 CU Structural Soil™: Yes

Insect Disease

none serious

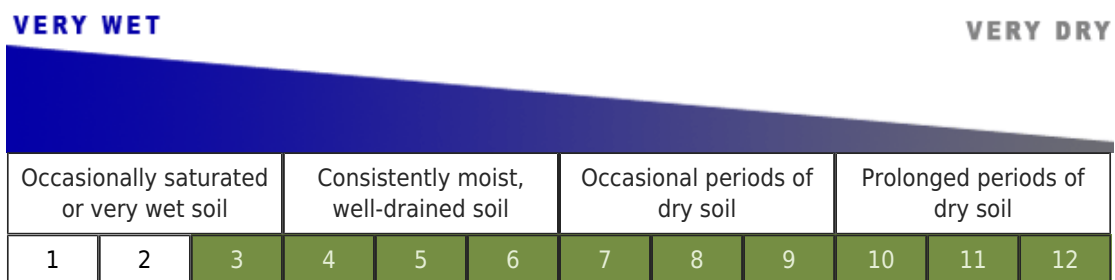
Bare Root Transplanting

Any

Other

transplants easily; fallen fruit (female trees only) are a litter problem; roots can clog drainage tiles

Moisture Tolerance



Cultivars for *Maclura pomifera*Showing **1-6** of **6** items.

Cultivar Name	Notes
Park	'Park' - non-spiny male
Wichita	'Wichita' - non-spiny male cultivar
White Shield	'White Shield' - non-spiny male cultivar
var. inermis	var. inermis - thornless
Double O	'Double O' - male form; thorns are only apparent on young stems
Pawhuska	'Pawhuska' - older thornless selection

Photos



Maclura pomifera - Leaves, Fruit



Maclura pomifera - Fruit



Maclura pomifera - Leaves, Flowers



Maclura pomifera - Bark



Maclura pomifera - Habit



Maclura pomifera - Leaves



Maclura pomifera - Flowers



Maclura pomifera - Bark



Maclura pomifera - Fruit



Species: *Metasequoia glyptostroboides*

(met-ah-see-quoy'ah glip-to-stro-boy'deez)

Dawn Redwood

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 70' - 100' (spread 25')
 Leaves: Deciduous
 Shape: conically pyramidal
 Ornamental Other:

Environmental Characteristics

Light: Full sun, Part shade
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Insect Disease

relatively pest free; susceptible to twig kill in frost pockets

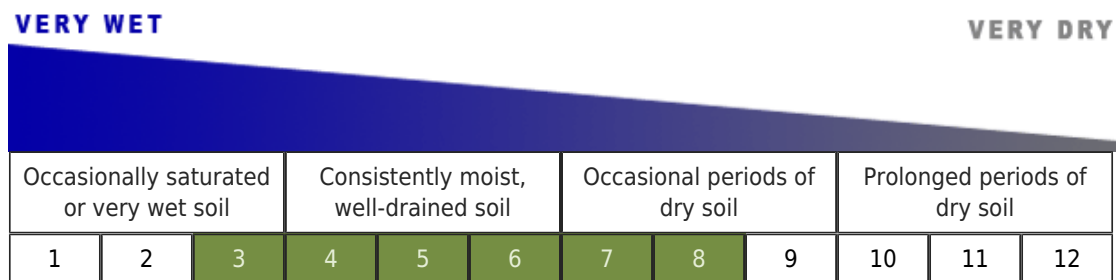
Bare Root Transplanting

Any

Other

native to western China; transplant in spring or fall; very fast growth (3'-4' per year)

Moisture Tolerance



Cultivars for *Metasequoia glyptostroboides*Showing **1-10** of **10** items.

Cultivar Name	Notes
Aurea	'Aurea' - gold-foliage
All Bronze	'All Bronze' - pale chartreuse foliage
Gold Rush	'Gold Rush' (a.k.a. 'Ogon') - bright gold foliage
Jack Frost	'Jack Frost' - white variegation starting along mid-rib and spreading from base of needles to tips
Mathaei	'Mathaei' (a.k.a. 'Matthaei's Brrom', 'Mathaei Broom') - slow-growing; semi-dwarf; to 4 - 6' tall and wide; rounded, pendulous habit
Miss Grace	'Miss Grace' - semi-dwarf, 6 - 8' tall and wide in 20 years; layered form; blue-green foliage
Sheridan	'Sheridan' (a.k.a. Sheridan Spire) - columnar form, tight growth habit; grows to 50' tall by 10-12' wide .
Spring Cream	'Spring Cream' - buttery yellow variegation on the foliage; grows to 40-50' x 15-20' wide
White Spot	'White Spot' - semi-weeping habit; white variegated foliage; grows to 40-50' x 15-20' wide, larger with age
National	'National' - narrowly upright; grows to 60' tall and a third as wide

Photos



Metasequoia glyptostroboides - Habit



Metasequoia glyptostroboides - Leaves



Metasequoia glyptostroboides - Bark



Metasequoia glyptostroboides - Habit



Metasequoia glyptostroboides - Habit



Metasequoia glyptostroboides - Habit, Bark



Metasequoia glyptostroboides - Habit



Metasequoia glyptostroboides - Habit



Metasequoia glyptostroboides - Leaves, Buds



Species: *Nyssa sylvatica*

(nis'ah sil-vat'i-kah)

Pepperidge; Sour Gum; Black Gum; Tupelo

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 70'
 Leaves: Deciduous
 Shape: pyramidal
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil

Insect Disease

pest free

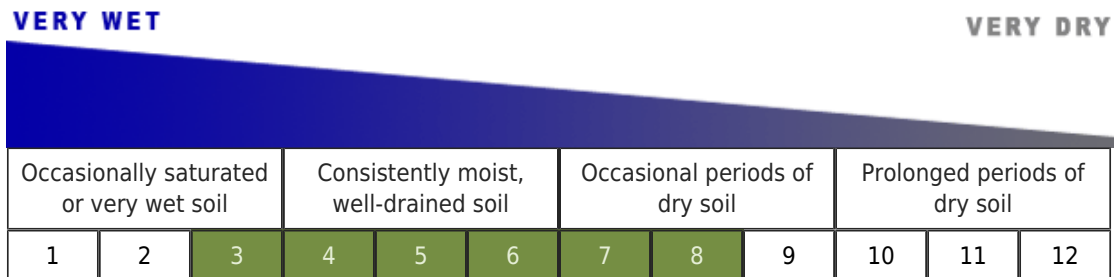
Bare Root Transplanting

Difficult

Other

native to eastern North America; difficult to transplant - use small sizes, B & B only; slow to recover from transplanting; transplant in spring

Moisture Tolerance



Cultivars for *Nyssa sylvatica*

Showing 1-12 of 12 items.

Cultivar Name	Notes
var. biflora	var. biflora - particularly adapted to poorly drained garden situations; grows to 50' tall
Autumn Cascades	'Autumn Cascades' - strongly weeping form; good fall color
Miss Scarlet	'Miss Scarlet' - particularly lustrous deep green foliage in summer and red in fall; abundant fruit production
Forum	'Forum' (a.k.a. 'NXSXF') - pyramidal habit; dense, glossy foliage; good red fall color
Pendula	'Pendula' - not as good a form as 'Autumn Cascades'; irregular slightly weeping habit that benefits from training; deep glossy green foliage shows good fall color
Red Red Wine	'Red Red Wine' (a.k.a. 'Red Wine') - red coloring of the new growth, becomes more subdued with age
Tupelo Tower	'Tupelo Tower' - very tight, upright habit; lustrous dark green summer foliage turns gorgeous shades of yellow and orange in early fall; grows to 40' tall x 20' wide
Zydeco Twist	'Zydeco Twist' - contorted, zig-zagging branches; wet site and salt tolerant; grow to 20' tall x 15' wide
Afterburner	'Afterburner' (a.k.a. 'David Odom') - grows to 35' tall x 20' wide; upright pyramidal to oval habit; symmetrical, uniform branch structure and straight central leader; glossy, persistent red fall foliage
Gum Drop	'Gum Drop' - grows to 30' tall x 20' wide; upright oval form; dark green, glossy foliage, turns bright red in fall; seedless; improved density and slightly compact form
Red Rage	'Red Rage' (a.k.a. 'Haymanred') - grows to 35' tall x 20' wide; broadly pyramidal form; deep green, high gloss summer foliage that resists leaf spot, then bright red with the onset of fall weather
Nyssa Sylvatica 'JFS-Red' trademark Firestarter	Narrower than the species with excellent strong central leader. Height estimated at 35' x 18' wide. Earlier to turn red than the species. Up sweeping branches giving a neat appearance. Seedless.

Photos



Nyssa sylvatica - Bark



Nyssa sylvatica - Habit, Fall Interest



Nyssa sylvatica - Fruit



Nyssa sylvatica - Leaves



Nyssa sylvatica - Leaves



Nyssa sylvatica - Habit



Nyssa sylvatica - Habit, Fall Interest



Nyssa sylvatica - Leaves, Petioles



Nyssa sylvatica - Leaves, Fall Interest



Species: *Ostrya virginiana*

(os'tri-ah ver-jin-i-ay'nah)

Hop Hornbeam

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 30' - 50'
 Leaves: Deciduous
 Shape: oval
 Ornamental Other: tolerates light shade

Environmental Characteristics

Light: Full sun, Part shade
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: slow growing; dark green leaves turn yellow/brown in fall and drop early; attractive grayish brown exfoliating bark; distinctive fruit resembles that of hops, hence the name

Insect Disease

pest free

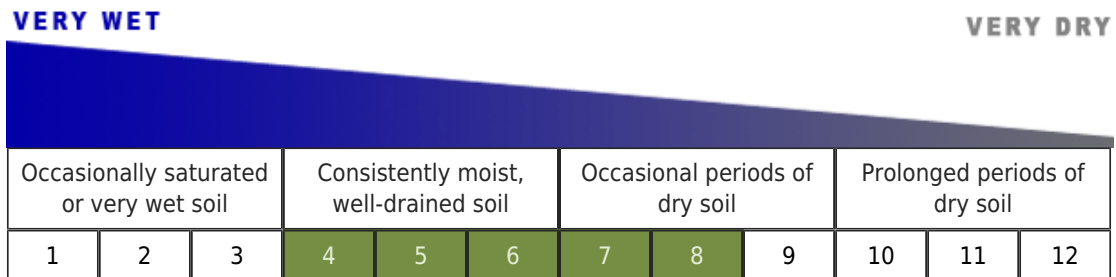
Bare Root Transplanting

Difficult

Other

slow to recover from transplanting; transplant in spring, Native to Eastern N. America

Moisture Tolerance



Photos



Ostrya virginiana - Leaves, Fruit



Ostrya virginiana - Leaves



Ostrya virginiana - Bark



Ostrya virginiana - Habit



Ostrya virginiana - Bark



Ostrya virginiana - Fruit



Ostrya virginiana - Catkins



Ostrya virginiana - Catkins



Ostrya virginiana - Leaf



Species: *Phellodendron amurense*

(fel-oh-den'dron a-moor-en'see)

Amur Cork Tree

Cultivar Information

Due to the increasingly invasive tendencies of this plant it is recommended that male cultivars be used as they do not produce fruit/seed. That said it is important to not that male cultivars can fertilize female plants which will produce viable fruit. As of yet no true sterile cultivars exist.
 * See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 30' - 40'
 Leaves: Deciduous
 Shape: round, open with massive branches
 Ornamental Other: does not do well in restricted root zone areas

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: corky, furrowed bark; requires adequate space to spread its branches
 CU Structural Soil™: Yes

Insect Disease

pest free

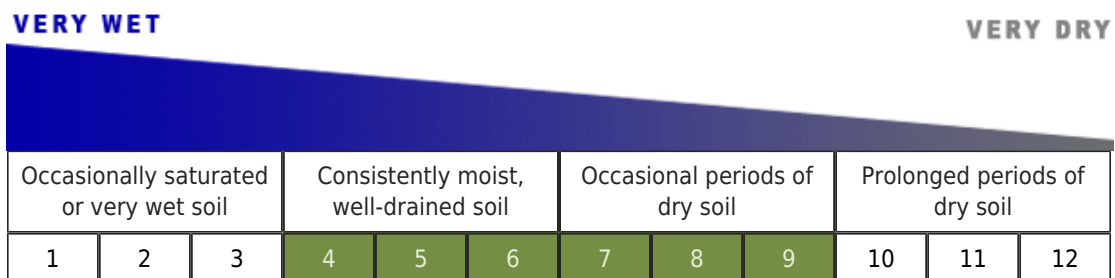
Bare Root Transplanting

Easy

Other

Native to Northern China and Japan Prohibited as INVASIVE in New York State

Moisture Tolerance



Cultivars for *Phellodendron amurense*Showing **1-3** of **3** items.

Cultivar Name	Notes
Macho	'Macho' - vigorous male, thick leathery leaves, fruitless
His Majesty	'His Majesty' - male selection which produces no weedy seedlings or fruit mess; spreading growth habits to 40' tall; wide with lustrous foliage
Shademaster	'Shademaster' (a.k.a. 'RNI 4551') - non-fruiting male selection; spreading habit to 40'; large, glossy foliae

Photos



Phellodendron amurense -
Leaves, Fruit



Phellodendron amurense - Habit,
Fall Interest



Phellodendron amurense -
Leaves, Fall Interest



Phellodendron amurense - Habit



Phellodendron amurense - Bark



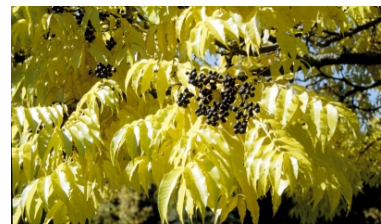
Phellodendron amurense - Habit



Phellodendron amurense - Habit



Phellodendron amurense - Habit,
Fall Interest



Phellodendron amurense -
Leaves, Fall Interest, Fruit



Species: *Platanus x acerifolia*

(plat'an-us a-ser-i-fo'lee-ah)

London Planetree

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 70' - 100'
 Leaves: Deciduous
 Shape: pyramidal when young; open, spreading with age
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: Tolerates wet and intermittently flooded sites; drought tolerant
 CU Structural Soil™: Yes

Insect Disease

'Columbia' and 'Liberty' resistant to anthracnose & powdery mildew;
 'Bloodgood' resistant to Anthracnose;
 cankerstain may be a problem

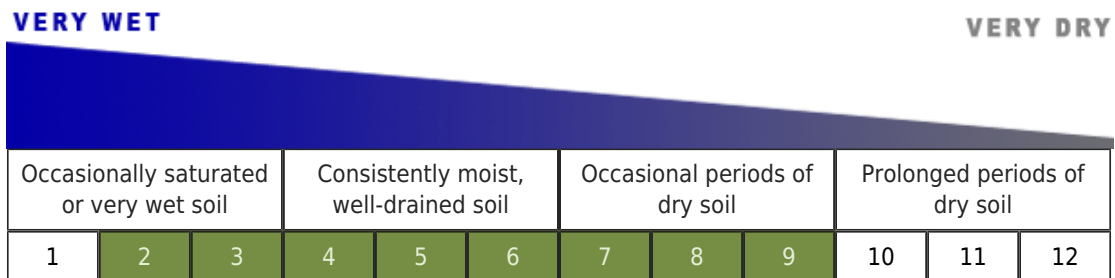
Bare Root Transplanting

Easy

Other

hybrid of *P. orientalis* x *P. occidentalis*; transplant in spring or fall

Moisture Tolerance



Cultivars for *Platanus x acerifolia*

Showing 1-7 of 7 items.

Cultivar Name	Notes
Bloodgood	'Bloodgood' - tolerates severe pruning; rapid grower; reported superior anthracnose resistance, though reports vary regarding this trait; grows to 60' tall
Yarwood	'Yarwood' - tolerant of poor environmental conditions and resists disease; uniform pyramidal habit; dark green leaves; early development of exfoliating bark
Columbia	'Columbia' - pyramidal form; superior resistance to mildew and anthracnose; grows to 50' tall; tolerates heavy pruning, heals wounds well
Liberty	'Liberty' - pyramidal form; vigorous grower; grows to 50' tall; shows good tolerance for mildew, anthracnose, heat and drought
Metroshade	'Metroshade' (a.k.a. 'Metzam') - pyramidal habit; grows strongly to 70' tall; notable disease resistance; lustrous green foliage that emerges with a reddish cast
Mirkovec	'Mirkovec' - dwarf, shrubby habit; unusual variegated lobed leaves with pink, cream and bronze regions
Morton Circle	'Morton Circle' (a.k.a. 'Exclamation!') - anthracnose resistant; densely branched; tolerant of pollution, drought, poor drainage and compacted soils; grows to 60' tall x 45' wide

Photos



Seed heads in winter



Platanus x acerifolia - Bark



Platanus x acerifolia - Habit



Platanus x acerifolia - Habit



Platanus x acerifolia - Leaves



Platanus x acerifolia - Habit



Platanus x acerifolia - Leaf



Platanus x acerifolia - Seeds



Platanus x acerifolia - Habit



Species: *Prunus sargentii*

(pree'nus sar-jen'tee-eye)

Sargent Cherry

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 50'
 Leaves: Deciduous
 Shape: vase; round with age
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil

Insect Disease

none serious

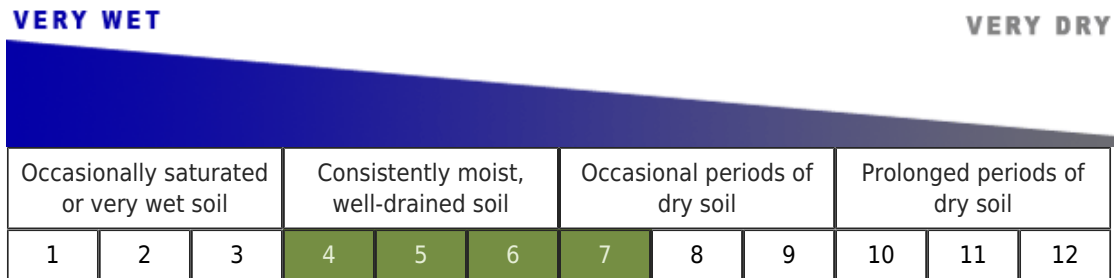
Bare Root Transplanting

Easy

Other

native to Japan; transplant in spring

Moisture Tolerance



Cultivars for *Prunus sargentii*Showing **1-5** of **5** items.

Cultivar Name	Notes
Accolade	'Accolade' - semi-double flowers; red buds open to pink, hybrid between P. sargentii and P. subhirtella
Columnaris	'Columnaris' - columnar, narrow form
Pink Flair	'Pink Flair' - compact, upright, narrow vase-like form; clustered single pink flowers; flowers 1-2 weeks later than species to avoid frost damage; red-orange fall color; grows to 25' tall x 15' wide
Rancho	'Rancho' - narrowly habit; grows to 30' tall and only 10' wide
Princeton Snowcloud	'Princeton Snowcloud' - white flowers; grow to 25' tall and wide

Photos



Prunus sargentii - Bark



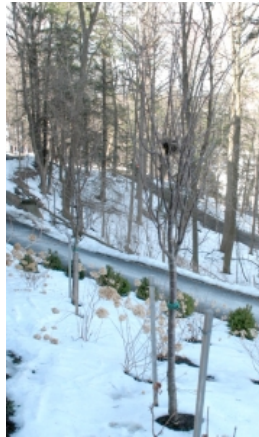
Prunus sargentii - Habit, Flowers



Prunus sargentii - Habit, Flowers



Prunus sargentii - Bark



Prunus sargentii - Habit



Prunus sargentii - Bark



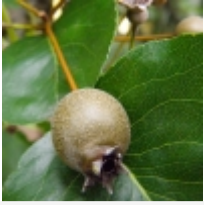
Prunus sargentii - Leaf



Prunus sargentii - Habit



Prunus sargentii 'Columnaris' - Habit, Flowers



Species: *Pyrus calleryana*

(pye'rus kal-ler-ee-ay'nah)

Callery Pear

Cultivar Information

Prized for its spring flower show, glossy foliage, fall color, and urban tolerance this species has a variety of cultivars. Older varieties have problems with poor branch angles, resulting in splitting. Fire blight can be a problem with some. This species has been shown to have invasive tendencies throughout most of its range (particularly in Zone 6 and warmer). No truly sterile cultivars are known at this time.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 30' - 50'
 Leaves: Deciduous
 Shape: round, pyramidal
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

\\'Autumn Blaze\\', \\'Cleveland Select\\', \\'Fauriei\\' and \\'Whitehouse\\' tolerant to fireblight; \\'Aristocrat\\' somewhat susceptible to fireblight

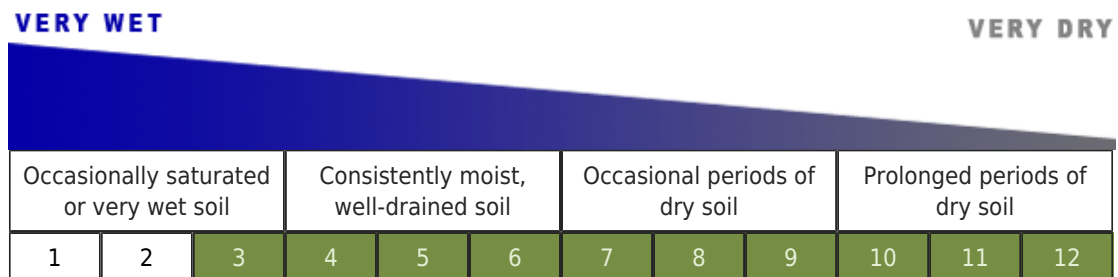
Bare Root Transplanting

Easy

Other

native to China; transplant in spring. May become invasive in zones 5 and warmer

Moisture Tolerance



Cultivars for *Pyrus calleryana*Showing **1-16** of **16** items.

Cultivar Name	Notes
Aristocrat	'Aristocrat' - upright; vigorous; good branching angles; later blooming; good fall color
Autumn Blaze	'Autumn Blaze' - good branching angles; early bright red fall color; most cold hardy
Chanticleer	'Chanticleer' (a.k.a. 'Glen's Form', 'Select', 'Cleveland Select', 'Stone Hill' and 'Stonehill') - upright, pyramidal habit; grow to to 30' tall x 15' wide; fireblight resistance; attractive red-purple fall color.
Bradford	'Bradford' - early-flowering; dense branching and broadly pyramidal habit; grows to 50' tall x 40' wide; good resistance to fireblight; genetic predisposition to form tight branch crotch angles that split causing maintenance issues and safety hazards, as a result, no longer a valid cultivar
Capital	'Capital' - fastigate form; grows to 35' tall x 10' wide; glossy green foliage turns red-purple come fall, very susceptible to fireblight, this disease problem may recommend against its use
Fauriei	'Fauriei' (a.k.a. <i>Pyrus fauriei</i> , <i>P. calleryana</i> var. <i>fauriei</i>) - pyramidal-rounded form; grows slowly to 40' tall; flowers heavily, but is not as fine an ornamental as other types; fall foliage colors yellow to red earlier than other types
Jack	'Jack' (a.k.a. 'Jaczam') - rounded, dwarf habit; dense growth; mature size less than half that of standard forms, grows to 20' tall and wide; lustrous foliage and white flowers
Jill	'Jill' (a.k.a. 'Jilzam') rounded, dwarf habit; dense growth; mature size less than half that of standard forms, grows to 20' tall and wide; lustrous foliage and white flowers
Redspire	'Redspire' - pyramidal-oval form; looser in form than 'Bradford'; slower growth; earlier fall color with shades of yellow to red; prone to fireblight
Whitehouse	'Whitehouse' - fastigate pyramidal form; grows to 40' tall x 15' wide; flowers about a week later than other cultivars; develops fall color earlier; heavily afflicted by leaf diseases
Burgundy Snow	'Burgundy Snow' (a.k.a. 'Bursnozam') - pyramidal, well-balanced form; flowers profusely; grows to 30' tall x 20' wide
Dancer	'Dancer' - serrate leaves
Holmford	'Holmford' - marketed at the new 'Bradford'; glossy green foliage; yellow to orange-red fall foliage; grows to 35' tall x 30' wide; better disease resistance and branch angles than 'Bradford'
Korean Sun	'Korean Sun' (a.k.a. 'Westwood') - compact and rounded form; grows to 15' tall

Cultivar Name	Notes
Trinity	'Trinity' - one of the improved form post-'Bradford' selections; dense, well-rounded form; negligible fruit; glossy green leaves turn orange-red in autumn; grows to 30' tall
Javelin	'Javelin' - fastigate, tightly columnar form; purple to bronze green foliage, purple to maroon fall color; pink buds open to white flowers; fireblight resistant; grows to 35' tall x 10' wide

Photos



Pyrus calleryana - Leaves, Fall Interest



Pyrus calleryana - Bark



Pyrus calleryana - Bud



Pyrus calleryana - Flowers



Pyrus calleryana - Habit



Pyrus calleryana - Habit, Flowers



Pyrus calleryana - Leaf



Pyrus calleryana - Habit



Pyrus calleryana 'Chanticleer' - Habit, Flowers



Species: *Quercus acutissima*

(kwer'kus a-kue-tis'ih-mah)

Saw-tooth Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 50'
 Leaves: Deciduous
 Shape: broad oval
 Ornamental Other: Dark green leaves emerge early, turn golden brown in autumn and may persist into winter; deeply ridged and furrowed bark

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: Does well in occasionally vert wet soils

Insect Disease

reasonably pest free; preferred by orange-striped oakworm

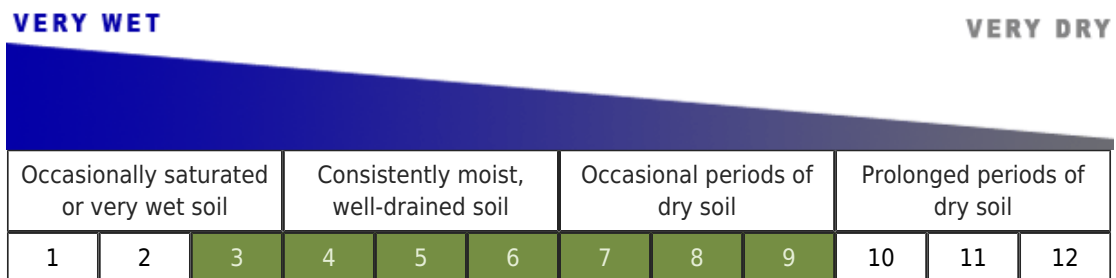
Bare Root Transplanting

Any

Other

Native to East Asia. transplant in spring

Moisture Tolerance



Cultivars for *Quercus acutissima*

Showing **1-2** of **2** items.

Cultivar Name	Notes
var. chenii	var. chenii - smooth leaves and smaller acorns
Gobbler	'Gobbler' - abundant production of acorns that are favored by wildlife; profuse production of nuts early in the season

Photos



Quercus acutissima - Acorns



Quercus acutissima - Habit



Quercus acutissima - Leaves



Quercus acutissima - Leaves



Quercus acutissima - Habit



Quercus acutissima - Leaves



Quercus acutissima - Habit



Quercus acutissima - Habit



Quercus acutissima - Bark



Species: *Quercus bicolor*

(kwer'kus bye'kul-urr)

Swamp White Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 60'
 Leaves: Deciduous
 Shape: broad oval with round top
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4a
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: Variable in tis response to soil pH. When structural soil is made with limestone it has shown some chlorosis.
 CU Structural Soil™: Yes

Insect Disease

susceptible to anthracnose; intermediate preference by orange-striped oakworm

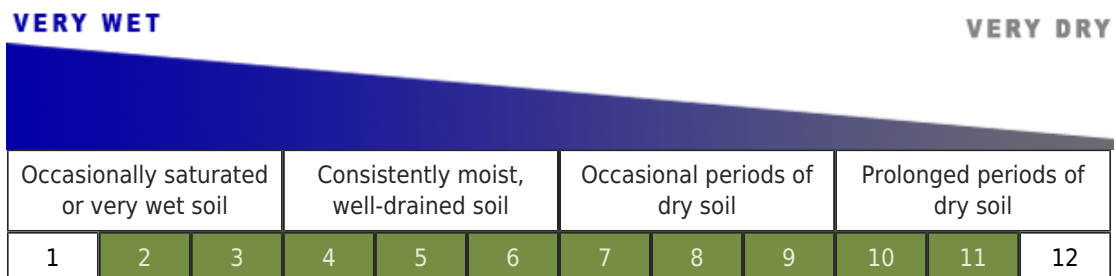
Bare Root Transplanting

Easy

Other

native from Quebec to Michigan, south to Georgia and Arkansas; transplant in spring or fall

Moisture Tolerance



Cultivars for *Quercus bicolor*Showing **1-4** of **4** items.

Cultivar Name	Notes
American Dream	'American Dream' - broad pyramidal form; vigorous grower; grows to 50' tall x 40' wide; bright green, glossy foliage; strong resistance to anthracnose and powdery mildew
Beacon	'Beacon' (a.k.a. 'Bonnie and Mike') - narrow columnar form; grows to 40' tall x 15' wide;
Rosehill	Rosehill (a.k.a. 'Asjes') - fastigate, upright form; most likely a hybrid with <i>Q. robur</i> ; resistant to leaf ailments such as mildew; lustrous green foliage
Regal Prince	'Regal Prince' (a.k.a. <i>Q. x warei</i> 'Long') - upright-oval form; a cross with <i>Q. robur</i> 'Fastigiata'; vigorous grower to 60' tall x 25' wide

Photos



Hybrid between *Q. robur fastigiata* and *Q. bicolor*



Quercus bicolor - Leaves, Acorns



Quercus bicolor - Bark



Quercus bicolor - Leaves



Quercus bicolor - Bark



Quercus bicolor - Habit



Quercus bicolor - Buds



Quercus bicolor - Habit, Fall Interest



Quercus bicolor - Acorns



Species: *Quercus coccinea*

(kwer'kus kok-sin'ee-ah)

Scarlet Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 70' - 75' (40' - 50' spread)
 Leaves: Deciduous
 Shape: pyramidal to rounded and open. glossy, dark green leaves turn scarlet in fall; autumn color can last 3-4 weeks
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Insect Disease

No diseases listed

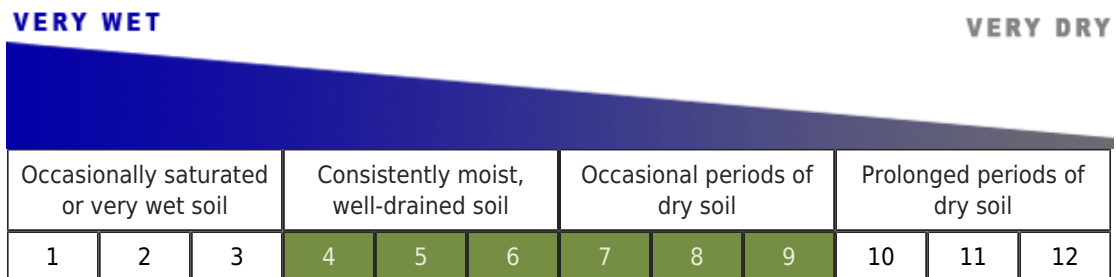
Bare Root Transplanting

Difficult

Other

Native to eastern and central US Difficult to transplant

Moisture Tolerance



Cultivars for *Quercus coccinea*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Splendens	'Splendens' - narrow crown; leaves turn brilliant fiery-red on acid soil; vigorous growth; grows to 80' tall x 40' wide

Photos



Quercus coccinea - Acorns



Quercus coccinea - Leaves, Fall Interest



Quercus coccinea - Leaves



Quercus coccinea - Habit



Quercus coccinea - Bark



Quercus coccinea - Leaf, Fall Interest



Quercus coccinea - Habit, Fall Interest



Quercus coccinea - Buds



Species: *Quercus imbricaria*

(kwer'kus im-bri-kare'i-ah)

Shingle Oak

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 60' (spread equal)
 Leaves: Deciduous
 Shape: round
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: lustrous dark green leaves turn yellow/brown or russet/red in fall and persist into winter

Insect Disease

anthracnose, canker, powdery mildew, rust, wilt, galls, scales, borers, miners, etc., may be a problem

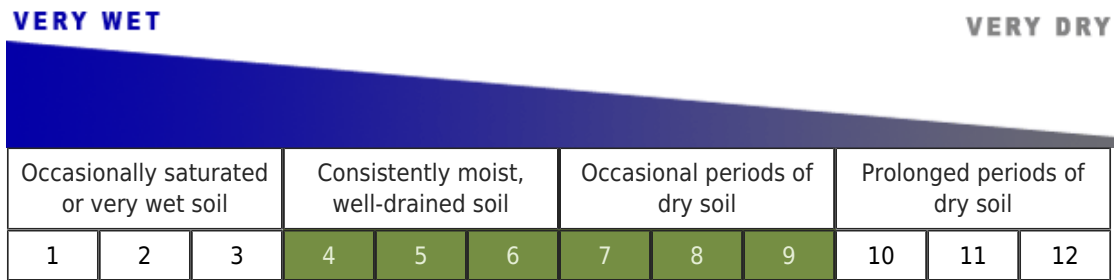
Bare Root Transplanting

Difficult

Other

Native to mid-west US slow to recover from transplanting; transplants well in spring

Moisture Tolerance



Photos



Quercus imbricaria - Bark



Quercus imbricaria - Habit



Quercus imbricaria - Leaves



Quercus imbricaria - Leaves



Quercus imbricaria - Habit



Quercus imbricaria - Leaves



Quercus imbricaria - Habit



Quercus imbricaria - Habit



Quercus imbricaria - Buds



Species: *Quercus macrocarpa*

(kwer'kus ma-kro-kar'pah)

Bur Oak; Mossycup Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 80' (equal spread)
 Leaves: Deciduous
 Shape: round
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

susceptible to anthracnose; intermediate preference by orange-striped oakworm

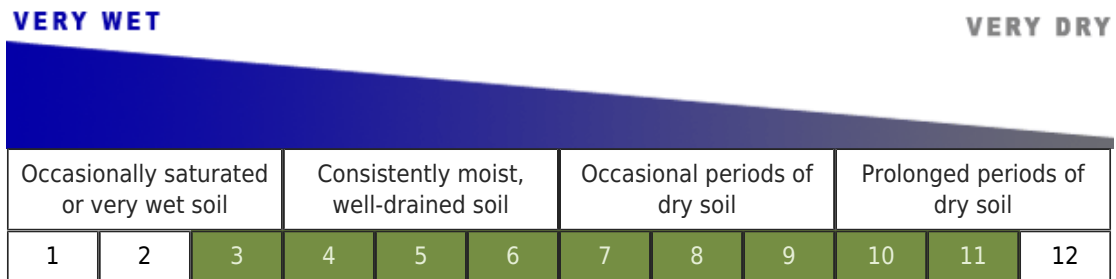
Bare Root Transplanting

Difficult

Other

Native to North America (from Nova Scotia to Manitoba, south to Texas); very difficult to transplant. Transplant small sizes in spring

Moisture Tolerance



Cultivars for *Quercus macrocarpa*Showing **1-4** of **4** items.

Cultivar Name	Notes
Heritage	'Heritage' (a.k.a. 'Clemons') - broadly pyramidal to oval form; a hybrid with English oak <i>Q. robur</i> ; vigorous grower to 80' tall x 50' wide. dark green, glossy foliage; resistant to mildew and wind tearing
Urban Pinnacle	'Urban Pinnacle' - narrow pyramidal to oval form with a strong central leader; glossy foliage; resistant to both mildew and anthracnose; extremely small acorns for this species; grows to 55' x 25' wide
Ashworth	'Ashworth' - small sweet acorns and high yields which require little processing and are more easily edible; grows to 40 - 50' high and wide
Cobblestone	'Cobblestone' - broadly oval form; markedly corky bark giving it an ancient look even when young; dark green foliage; mildew and anthracnose resistant; grows to 55' tall x 45' wide

Photos



Quercus macrocarpa - Habit, Fall Interest



Quercus macrocarpa - Leaves, Bark



Quercus macrocarpa - Leaves



Quercus macrocarpa - Leaf, Fall Interest



Quercus macrocarpa - Bark



Quercus macrocarpa - Bud



Quercus macrocarpa - Bark



Quercus macrocarpa - Bark 'Cork Wings'



Quercus macrocarpa - Bark, Habit



Species: *Quercus muehlenbergii*

(kwer'kus mule-en-ber'gee-i)

Chinkapin Oak

Cultivar Information

No cultivars of this species exist as of yet. However, due to it's superior urban tolerance, this species will likely go through significant selection in future.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 35' - 50' (spread 35' - 50')
 Leaves: Deciduous
 Shape: open rounded
 Ornamental Other: dull yellow green leaf, underside silvery white

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: Not tolerant of shade
 CU Structural Soil™: Yes

Insect Disease

leaf miners, orange striped oak worm, acorn weevils

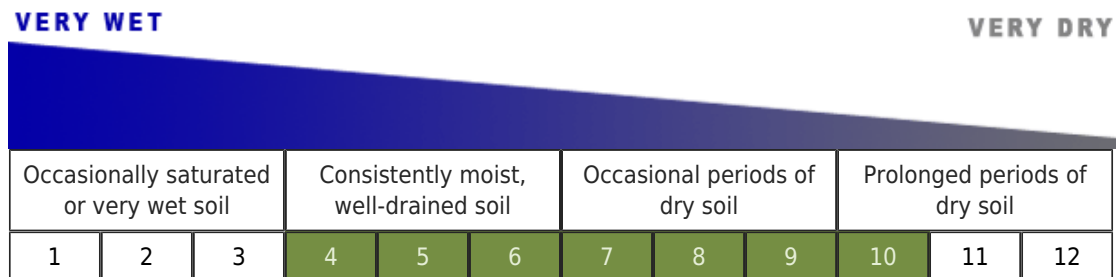
Bare Root Transplanting

Difficult

Other

native to dry, alkaline soils in eastern U.S.

Moisture Tolerance



Photos



Leaves



Quercus muehlenbergii



Quercus muehlenbergii - Leaves, Buds



Quercus muehlenbergii - Bark



Quercus muehlenbergii - Buds



Quercus muehlenbergii - Leaves



Quercus muehlenbergii - Habit



MUEHLENBERGII LEAVES



Q. MUEHLENBERGII TREE



Species: *Quercus palustris*

(kwer'kus pah-lus'tris)

Pin Oak; Swamp Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 70'
 Leaves: Deciduous
 Shape: pyramidal, oval with age;
 Ornamental Other: Strong central leader. Upper branches grow upward, middle branches grow outward, lower branches grow downward.

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Requires acid (pH 5.0 to 7.0)
 Environmental Other: iron chlorosis on high pH soils

Insect Disease

overplanting has encouraged insect problems; resistant to anthracnose; preferred by orange-striped oakworm

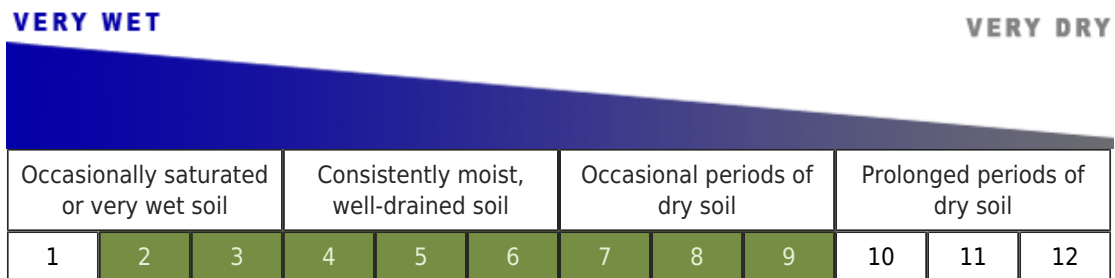
Bare Root Transplanting

Moderately difficult

Other

Native to U.S. (Massachusetts to Wisconsin, south to Delaware and Arkansas); transplant in spring; pendulous lower branches may need to be removed for pedestrian or vehicular traffic; one of the easiest oaks to transplant

Moisture Tolerance



Cultivars for *Quercus palustris*

Showing 1-7 of 7 items.

Cultivar Name	Notes
Crownright	'Crownright' (a.k.a. 'Crown Right') - upright habit; branches point upward, avoiding the need to prune up lower branches, as is the case with other selections of this species
Green Pillar	'Green Pillar' (a.k.a. 'Emerald Pillar') - fastigate form; glossy leaves turn red in fall
Sovereign	'Sovereign' - superior branching, form, vigor, and foliage quality. It also lacks pendulous lower branches; unfortunately it often develops grafting issues
Green Dwarf	'Green Dwarf' - dense, bushy habit; glossy green leaves which turn rich-red and orange in autumn; very slow growing; grows to 8' high and wide
Isabel	'Isabel' - cone shaped, dense, bushy habit; red and orange autumn colors; larger than other dwarf forms; grows to 13' tall x 10' wide
Flaming Suzy	'Flaming Suzy' - fast growing; scarlet autumn foliage; grows to 65' tall x 50' wide
Swamp Pygmy	'Swamp Pygmy' - dwarf form, similar to 'Green Dwarf'

Photos



Quercus palustris - Habit, Fall Interest



Quercus palustris - Leaves, Fall Interest



Quercus palustris - Leaves



Quercus palustris - Habit



Quercus palustris - Habit



Quercus palustris - Habit



Quercus palustris - Habit



Quercus palustris - Bark



Quercus palustris - Buds



Species: *Quercus phellos*

Willow Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40'-70'
 Leaves: Deciduous
 Shape: Pyramidal to Rounded
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil

Insect Disease

No diseases listed

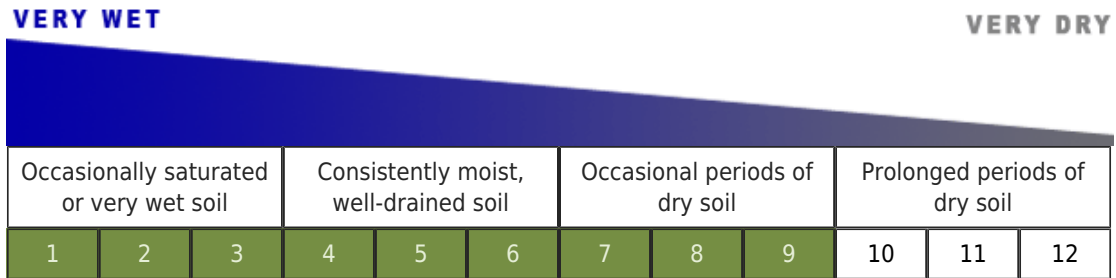
Bare Root Transplanting

Any

Other

Native of south eastern US and mid atlantic coastal areas

Moisture Tolerance



Cultivars for *Quercus phellos*

Showing **1-2** of **2** items.

Cultivar Name	Notes
Hightower	'Hightower' - uniform, dense, form; dominant leader; dark green leaves; grows to 55' tall x 30' wide
Upperton	'Upperton' (a.k.a. 'RT3') - more narrow habit; grows to 60' tall x 30' wide

Photos



Quercus phellos - Bark



Quercus phellos - Buds



Quercus phellos - Leaves



Quercus phellos - Habit



Quercus phellos in Ithaca



Species: *Quercus robur*

(kwer'kus row'burr)

English Oak; Truffle Oak; Pedunculate Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 60' (equal spread)
 Leaves: Deciduous
 Shape: round
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

powdery mildew can be a problem;
 susceptible to anthracnose

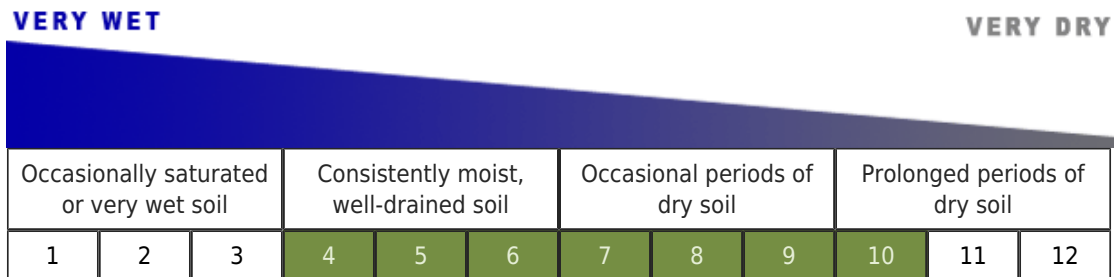
Bare Root Transplanting

Moderately difficult

Other

native to Europe, northern Africa, western Asia; transplant in spring

Moisture Tolerance



Cultivars for *Quercus robur*

Showing 1-13 of 13 items.

Cultivar Name	Notes
Attention	columnar form; mildew resistant
Fastigiata	not recommended due to chlorosis on high pH soils
Skymaster	narrow oval; powdery mildew resistant
Autropurpurea	'Autropurpurea' - leaves emerge reddish-brown and mature to a more green color; slower-growing; smaller leaves; reaching a mature size of perhaps 30' tall
Concordia	'Concordia' - leaves that emerge bright yellow, but mature to green; otherwise similar to the species
Skyrocket	'Skyrocket' - newer fastigiate form with uniform habit; dark green foliage; highly-resistant to the mildew
Filicifolia	'Filicifolia' (a.k.a. 'Asplenifolia') - small rounded form; foliage distinctly incised and cut for a fine-textured, ferny appearance; slow-growing; rare in cultivation
Salicifolia	'Salicifolia' - small rounded form; elliptic un-lobed leaves that resemble a willow; grows to 30' tall
Westminster Globe	'Westminster Globe' (a.k.a. 'Michround') - rounded, pyramidal form; grows to 50' tall and wide; dark green leaves; performs best in colder climates
Pendula	'Pendula' - weeping form; rare in commerce; vigorous; long branches that arch and may be trained
Variegata	'Variegata' - weaker-growing trees; foliage variously marked or mottled with white
Argenteo Marginata	'Argenteo Marginata' (a.k.a. 'Argentea Marginata', 'Aureomarginata') - upright, narrow crown form; attractive green leaves with a cream-white edge; grows to 10' tall x 3' wide in 10 years
Cristata	'Cristata' - very small leaves are plaited, twisted asymmetrical; typically crowded at tips of shoot tips

Photos



Quercus robur - Buds



Quercus robur - Leaf



Quercus robur - Leaves



Quercus robur - Leaves, Fall Interest



Quercus robur - Habit



Quercus robur - Leaf



Quercus robur - Habit



Quercus robur - Habit



Quercus robur 'Skymaster' - Habit



Species: *Quercus rubra*

(kwer'kus rue'brah)

Red Oak; Northern Red Oak

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 75' (equal spread)
 Leaves: Deciduous
 Shape: round habit in youth and maturity
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)
 Salt Tolerance: Tolerates salty soil

Insect Disease

oak wilt is a serious problem in more southern areas; resistant to anthracnose; preferred by orange-striped oakworm

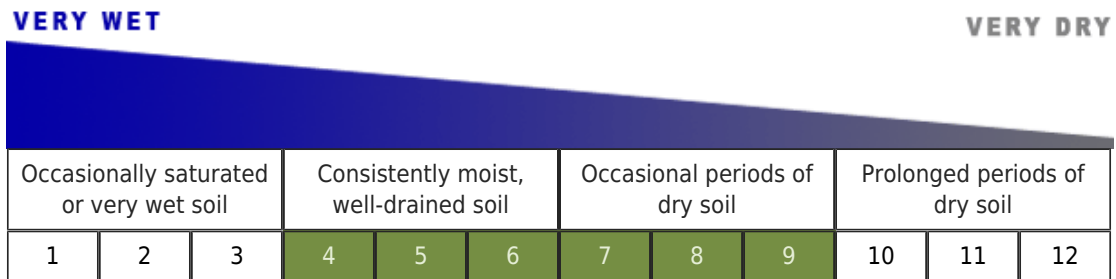
Bare Root Transplanting

Easy

Other

native to North America (Nova Scotia to Pennsylvania, west to Minnesota and Iowa); transplant in spring; like *Q. palustris*, relatively easy to transplant

Moisture Tolerance



Cultivars for *Quercus rubra*

Showing **1-4** of **4** items.

Cultivar Name	Notes
Aurea	'Aurea' - young leaves emerge with a golden yellow color which matures to green; uncommon in the trade
Splendens	'Splendens' - notably red fall color
Boltes Gold	'Boltes Gold' - golden-yellow leaves in spring, darkening to lime green as they age; leaves turn shades of red and orange in autumn; leaves of this selection are less prone to burning than the more common <i>Q. rubra</i> 'Aurea'; grows to 50' tall x 32'wide
Magic Fire	'Magic Fire' - yellow leaves in autumn; slow growing to 32 ft tall x 26' wide

Photos



Quercus rubra - Bark



Quercus rubra - Habit



Quercus rubra - Leaves



Quercus rubra - Leaves, Fall Interest



Quercus rubra - Habit



Quercus rubra - Habit



Quercus rubra - Bud



Quercus rubra - Habit



Quercus rubra - Habit



Species: *Quercus shumardii*

Shumard Oak

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40'-60' H & W in landscape, >100' in nature
 Leaves: Deciduous
 Shape: Pyramidal, more spreading at maturity
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

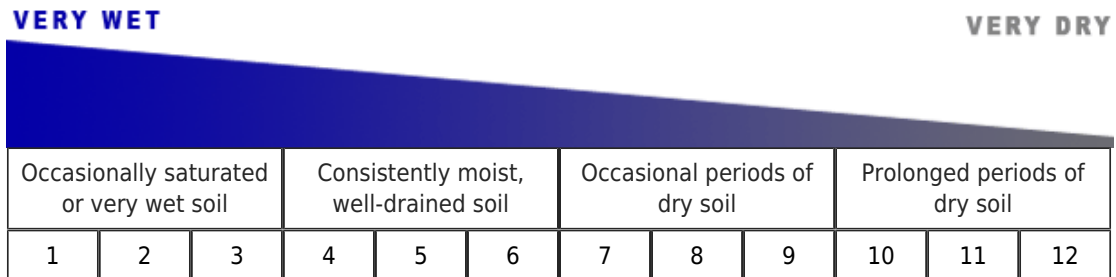
Insect Disease

No diseases listed

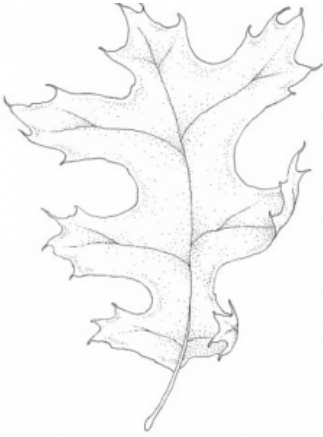
Bare Root Transplanting

Any

Moisture Tolerance



Photos



Quercus shumardii leaf (line drawing)



Species: *Robinia pseudoacacia*

(roe-bin'ee-ah sue-doe-a-kay'see-ah)

Black Locust

Cultivar Information

Variable size and shape. Globe <30'. 'Purple Robe,' 'Pyramidalis,' 'Globosum,' 'Bessoniana' are easy to transplant bare root.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 40' - 70' (spread 20' - 35'), some cultivars <30'
 Leaves: Deciduous
 Shape: open irregular
 Ornamental Other: good in very difficult reclamation sites; tolerates intermittent flooding and drought; fixes atmospheric nitrogen

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: white, fragrant flowers in late spring; dark gray rosy bark; dark bluish green pinnately compound leaves
 CU Structural Soil™: Yes

Insect Disease

borers can be a serious problem; leaf miners may also be problematic

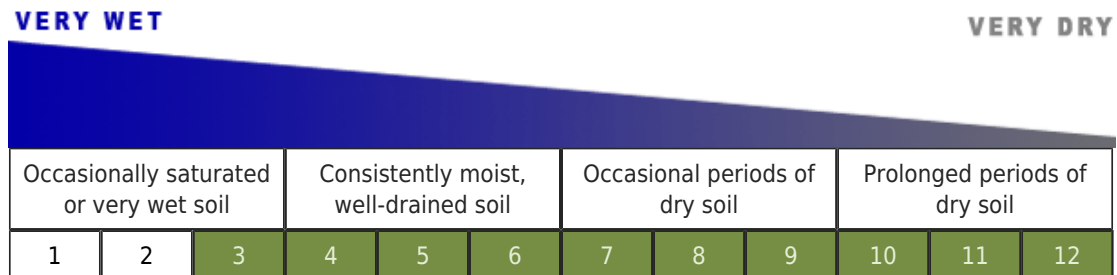
Bare Root Transplanting

Easy

Other

native to east-central U.S. (Pennsylvania to Iowa, south to Georgia and Oklahoma); widely used in Europe as a street tree. Prohibited as INVASIVE in New York State

Moisture Tolerance



Cultivars for *Robinia pseudoacacia*

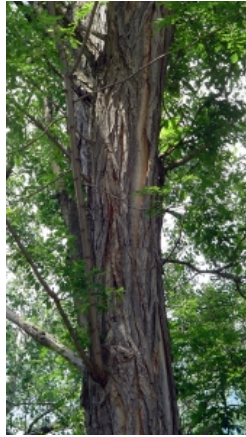
Showing 1-11 of 11 items.

Cultivar Name	Notes
Bessoniana	'Bessoniana' - small; compact; well-branched; oval; spineless
Globe	'Globe' - small, spineless, <30'
Frisia	'Frisia' (a.k.a. 'Aurea') - foliage emerges golden yellow, dulls in summer heat; red spines on new shoots; vigorous grower to 30' - 50' tall
Idaho	'Idaho' - possibly an R. x ambigua selection; tolerates difficult cultural conditions; cold tolerant to zone 3-4; rosy-pink blooms; grows to 40' tall x 30' wide
Purple Robe	'Purple Robe' (a.k.a. 'Rouge Cascade', 'Casque Rouge', 'Pink Cascade', 'Red Cascade') - possibly an R. x ambigua selection; compact rounded form; rose-pink flowers; grows to a 40' tree; new growth emerges bronzy-red and retains some undertones of this color into summer; forms fewer seeds than the species; flowers slightly earlier in the season
Pyramidalis	'Pyramidalis' (a.k.a. 'Fastigiata') - strongly upright, fastigate, spineless form; grows to 50' tall x 15' wide
Semperflorens	'Semperflorens' - sporadic bloom after the initial late-spring flush
Umbraculifera	'Umbraculifera' - dense, umbrella-like, dwarf form; grows to 20' tall; produces few or no thorns; flowers very sparsely; prone to damage from ice and borer insects
Twisty Baby	'Twisty Baby' (a.k.a. 'Tortuosa', 'Lace Lady') - twisted, contorted branches and stems; often grafted; usually do not exceed 10' in height; flowering is sparse or non-existent
Chicago Blues	'Chicago Blues' (a.k.a. 'Benjamin') - upright form with an oblong crown; thornless; blue-green foliage; grow to 50' tall x 35' wide
Inermis	'Inermis' - thornless variety

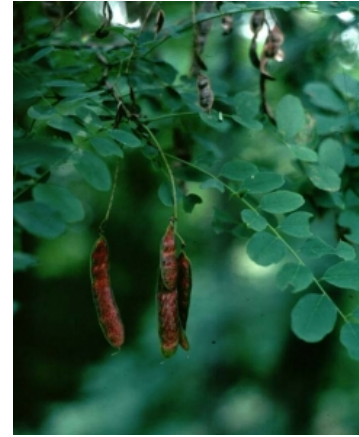
Photos



Robinia pseudoacacia - Habit



Robinia pseudoacacia - Bark



Robinia pseudoacacia - Leaves, Fruit



Robinia pseudoacacia - Leaves



Robinia pseudoacacia - Habit



Robinia pseudoacacia - Habit



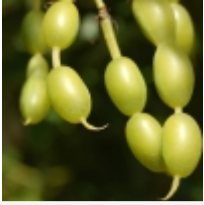
Robinia pseudoacacia - Habit



Robinia pseudoacacia - Habit



Robinia pseudoacacia - Fruit



Species: *Styphnolobium japonicum*

(stif-noh-lo'bi-um ja-pon'i-kum)

Japanese Pagoda Tree; Scholar-Tree

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 70'
 Leaves: Deciduous
 Shape: dense, round
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: May suffer from minor branch dieback in zone 5b, but it readily grows out of it.
 CU Structural Soil™: Yes

Insect Disease

Regent cultivar resistant to leaf hoppers; twig dieback and stem canker in colder zones

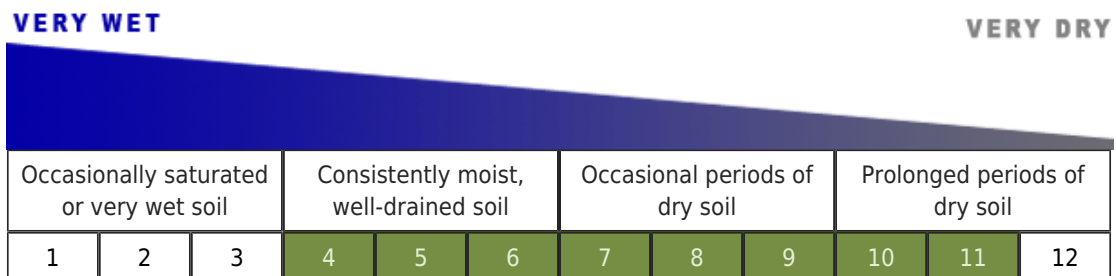
Bare Root Transplanting

Any

Other

native to China and Korea; transplant in spring or fall; somewhat weak-wooded

Moisture Tolerance



Cultivars for *Styphnolobium japonicum*Showing **1-5** of **5** items.

Cultivar Name	Notes
Princeton Upright	'Princeton Upright' (a.k.a. 'Columnaris', 'Fastigiata') - columnar upright form
Regent	'Regent' - rapid growth, profuse flowering, resistant to leaf chewers
Pendula	'Pendula' - weeping form, smooth green stems; this form rarely flowers; it is often grafted on a standard; grows to 15' to 25' tall
Gold Standard	'Gold Standard' - golden foliage
Winter Gold	'Winter Gold' - golden stems

Photos



Styphnolobium japonicum - Leaves



Styphnolobium japonicum - Flowers



Styphnolobium japonicum - Bark



Styphnolobium japonicum - Habit



Styphnolobium japonicum - Habit



Styphnolobium japonicum - Bark



Styphnolobium japonicum - Leaves



Styphnolobium japonicum - Leaf



Styphnolobium japonicum - Habit



Species: *Taxodium distichum*

(taks-oh'dee-um dis'ti-kum)

Bald Cypress

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50' - 70'
 Leaves: Deciduous
 Shape: columnar when young; wide spreading, open with age
 Ornamental Other: chlorotic on high pH sites; found in swamps and wet areas in its native range

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Requires acid (pH 5.0 to 7.0)
 Salt Tolerance: Tolerates salt spray, Tolerates salty soil
 Environmental Other: chlorotic on high pH sites; found in swamps and wet areas in its native range

Insect Disease

generally free of problems

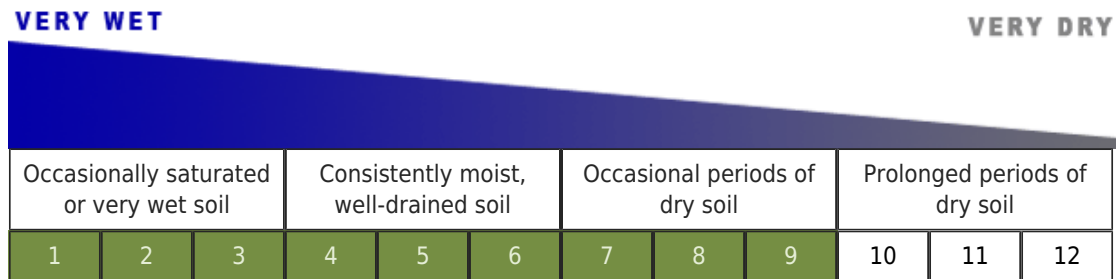
Bare Root Transplanting

Difficult

Other

transplant in spring; slow to recover from transplanting, native to Mid-Atlantic and Southern US.

Moisture Tolerance



Cultivars for *Taxodium distichum*

Showing 1-18 of 18 items.

Cultivar Name	Notes
Shawnee Brave	'Shawnee Brave' - narrow, fastigate form; grows to 80' tall x 20' wide; high quality green foliage; mite resistant
Fastigiata	'Fastigiata' - narrow, columnar habit
Monarch of Illinois	'Monarch of Illinois' - wide-spreading form; higher susceptibility to mites; grows to 90' tall x 70' wide
Pendens	'Pendens' - drooping branch tips
Autumn Gold	'Autumn Gold' (a.k.a. 'Sofine') - improved dense, fine-textured foliage; enhanced with an autumn gold color; improved uniform branching; dominant central leader
Casacade Falls	'Casacade Falls' - compact weeping form; typically grows to 8-12' tall over the first 10-15 years, eventually maturing to as much as 20' tall
Cave Hill	'Cave Hill' - dwarf globe form; gnarly branches grafted onto a standard
Peve Minaret	'Peve Minaret' - dwarf, broad upright form; dense, compact spire; soft, rich-green foliage; needles change to red-brown in autumn and hold for weeks
Secrest	'Secrest' - spreading dwarf form; low, slow-growing with horizontal branching
Emerald Shadow	'Emerald Shadow' - uniform upright habit; beautiful deep green foliage color; amber yellow fall color; grows to 50' tall x 15' wide
Falling Waters	'Falling Waters' - graceful arching form; bright green needles; fast grower matures to 20' tall
Green Whisper	'Green Whisper' - pyramidal form; grows to 55' tall x 30' wide; bright green foliage turns to rusty orange; holds pyramidal form as it ages
Hurley Park	'Hurley Park' - dwarf form; grows to 2' tall and wide in 10 years
Little Leaf	'Little Leaf' - upright form; tiny green needles turn to copper orange in fall; grows to 10' tall x 4' wide in 10 years
Peve Yellow	'Peve Yellow' - dense, pyramidal, compact, dwarf form; soft yellow foliage; grows to 6-8' tall x 3-5' wide in 10 years
Lindsey's Skyward	'Lindsey's Skyward' - upright columnar form; upward branching habit; grows to 25' tall x 10' wide
Cody's Feathers	'Cody's Feathers' - dwarf round form; soft green feather-like foliage changes to burnt-orange in fall; grows to 4' tall and wide in 10 years

Cultivar Name	Notes
Hursley Park	'Hursley Park' - dwarf, broad, compact form; grows to 2' tall x 3' wide in 10 years

Photos



Taxodium distichum - Bark



Taxodium distichum - Habit



Taxodium distichum - Habit



Taxodium distichum - Habit



Taxodium distichum - Habit



Taxodium distichum - Leaves



Taxodium distichum - Buds



Taxodium distichum - Bark



Taxodium distichum - Leaves, Cone



Species: *Tilia americana*

(til'ee-ah a-mer-i-kay'nah)

American Linden; Basswood

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 80'
 Leaves: Deciduous
 Shape: pyramidal
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 CU Structural Soil™: Yes

Insect Disease

Very susceptible to Japanese beetles, mites, aphids, borers; leaf miners and scale may also be problematic

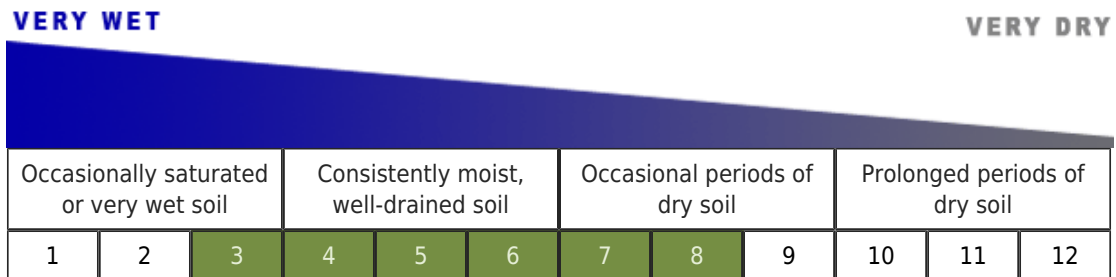
Bare Root Transplanting

Easy

Other

native to U.S. (Maine to Florida); transplant in spring or fall

Moisture Tolerance



Cultivars for *Tilia americana*Showing **1-8** of **8** items.

Cultivar Name	Notes
Boulevard	'Boulevard' - narrow pyramidal, yellow fall color
Fastigiata	'Fastigiata' - columnar to pyramidal form
Legend	'Legend' - hybrid between <i>T. americana</i> x <i>T. x euchlora</i> ; pyramidal form
Redmond	'Redmond' - hybrid between <i>T. americana</i> x <i>T. x euchlora</i> ; grows to pyramidal
Sentry	'Sentry' (a.k.a. 'American Sentry') - consistently upright pyramidal form; fragrant yellow flowers; dark green foliage; strong central leader; may experience insect problems; grows to 60' tall x 35' wide
Continental Appeal	'Continental Appeal' - upright narrow oval to pyramidal form; medium green foliage with white undersides; fast growing; grows to 50' tall x 28' wide
Lincoln	'Lincoln' - pyramidal, compact, dense form; dark green foliage; grows to 35' tall x 25' wide
Duros	'Duros' - round, upright, narrow form; green foliage; whitish bark; grows to 40-50' tall x 10-20' wide

Photos



Tilia americana - Bark



Tilia americana - Buds



Tilia americana - Leaf



Tilia americana - Leaves



Tilia americana - Habit



Tilia americana - Leaves, Suckers



Tilia americana - Habit



Tilia americana - Buds



Tilia americana - Fruit



Species: *Tilia cordata*

(til'ee-ah kore-day'tah)

Littleleaf Linden; Small-leaved Lime

Cultivar Information

There are many cultivars of this commonly used species.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 80'
 Leaves: Deciduous
 Shape: dense, pyramidal
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 CU Structural Soil™: Yes

Insect Disease

highly susceptible to aphids and Japanese beetles especially the cultivar, 'Greenspire'

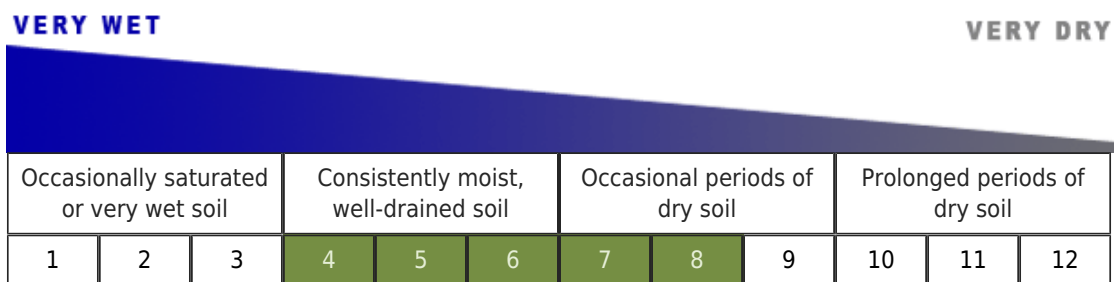
Bare Root Transplanting

Easy

Other

native to Europe; transplant in spring or fall

Moisture Tolerance



Cultivars for *Tilia cordata*

Showing 1-16 of 16 items.

Cultivar Name	Notes
Chancellor	'Chancellor' (a.k.a. 'Chancole') - narrow upright habit; grows to 50' tall and only 20' wide; wide crotch angles make the tree resistant to breaking during storms; drought tolerant
Corinthian	'Corinthian' (a.k.a. 'Corzam') - uniform pyramidal habit; lateral branches arranged uniformly around a strong central leader; glossy dark green leaves; grows to 45' tall x 15' wide
Glenleven	'Glenleven' - open symmetrical form; a <i>T. x flavescens</i> selection; larger leaves than normal; grows to 50' tall and 35' wide
Greenspire	'Greenspire' - broad pyramidal form; vigorous grower; readily available; grows to 50' tall x 35' wide; uniform branching; dark green leaves; exceptional tolerance for difficult conditions
Olympic	'Olympic' - broadly pyramidal, better branching
Rancho	'Rancho' - upright; vigorous; partially resistant to Japanese beetle
Shamrock	'Shamrock' (a.k.a. 'Baileyi') - broad-conical habit; thicker, less profuse branches creating a more open crown; glossy medium green foliage; faster growing; grows to 50' tall x 30' wide
Green Globe	'Green Globe' - "lollipop on a stick", dwarf form, the crown is a tight, compact ball of foliage; usually grafted; grows to 15' in height
Lico	'Lico' - "lollipop on a stick", dwarf form, the crown is a tight, compact ball of foliage; usually grafted; grows to 15' in height
De Groot	'De Groot' - compact habit; less suckering than most Linden varieties; grows to 30' tall x 20' wide
Fire-cracker	'Fire-cracker' - pyramidal form; produces leaves later than most (important in some situations for solar exposure); notable yellow fall color; grows to 40' tall x 30' wide
Summer Sprite	'Summer Sprite' (a.k.a. 'Halka') semi-dwarf, upright, oval rounded pyramidal form; grows to 20' tall x 15' wide
Harvest Gold	'Harvest Gold' - a hybrid between <i>T. cordata</i> and <i>T. mongolica</i> ; upright form as a young tree, becoming rounded with age; moderate growth rate; no serious disease or pest problems, though gypsy moth caterpillars and Japanese beetles will sometimes feed on the foliage, leaves are resistant to mites and fungal leaf spot; tolerant of cold; better fall color
Winter Orange	'Winter Orange' - stems are orange in winter with bright pink buds; otherwise similar to species

Cultivar Name	Notes
Pendula Nana	'Pendula Nana' - semi-dwarf, weeping, rounded, compact shrub; grows to 6' wide with a slightly smaller spread; slow growing; dark green foliage
Streetwise	'Streetwise' - improved form; fast-growing; neat form, strong central leader, well balanced head

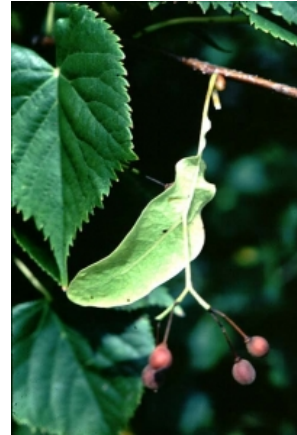
Photos



Tilia cordata - Flowers



Tilia cordata - Flowers



Tilia cordata - Fruit



Tilia cordata - Bark



Tilia cordata - Bud



Tilia cordata - Buds



Tilia cordata - Habit



Tilia cordata 'Glenleven' - Habit



Tilia cordata - Leaf



Species: *Tilia tomentosa*

(til'ee-ah toe-men-tose'ah)

Silver Linden

Cultivar Information

A few cultivars are available for this superior species and it is likely that more will be developed in the future. Several cultivars available in Europe are not yet found in the US.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 80'
 Leaves: Deciduous
 Shape: pyramidal
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: tolerates drought and heat better than *T. cordata*
 CU Structural Soil™: Yes

Insect Disease

less susceptible to Japanese beetles than other lindens

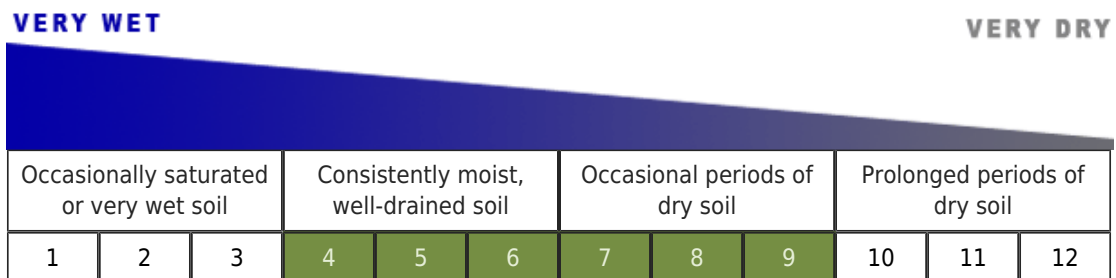
Bare Root Transplanting

Difficult

Other

native to southeastern Europe, western Asia; transplant in spring; slower to recover from transplanting than other lindens

Moisture Tolerance



Cultivars for *Tilia tomentosa*Showing **1-7** of **7** items.

Cultivar Name	Notes
Sterling Silver	'Sterling Silver' - vigorous grower; resistant to Japanese beetles
Green Mountain	'Green Mountain' - symmetrical; dense canopy
Sashazam	'Satin Shadow' (a.k.a. 'Sashazam') - symmetrical, reportedly resistant to Japanese Beetles
Brabant	'Brabant' - uniform, dense upright habit developing a dense, broadly-conical crown; aphid resistant
Chelsea Sentinel	'Chelsea Sentinel' - weeping columnar habit; delicate leaves, silver underneath produced on long stems; free from aphids; grows to 30' tall x 15' wide
Hungary Globe	'Hungary Globe' - semi-dwarf, globe form; grafted on a standard trunk; grows to 9' - 18' tall
Petiolaris	'Petiolaris' - longer leaf petioles (4-8 cm long) and drooping leaves; usually sterile; may be a hybrid with another <i>Tilia</i> species

Photos



Tilia tomentosa - Bark



Tilia tomentosa - Leaf



Tilia tomentosa - Fruit



Tilia tomentosa - Buds



Tilia tomentosa - Habit



Tilia tomentosa - Habit



Tilia tomentosa - Habit



Tilia tomentosa - Leaves



Species: *Tilia x euchlora*

(til'ee-ah you-klor'ah)

Crimean Linden

Cultivar Information

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 50'
 Leaves: Deciduous
 Shape: round; branches skirt the ground
 Ornamental Other: Reported to be more drought tolerant than *T. cordata*

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: vigorous compact growth; basal suckering on grafted trees; lustrous dark green leaves
 CU Structural Soil™: Yes

Insect Disease

more resistant to aphids than *T. cordata*

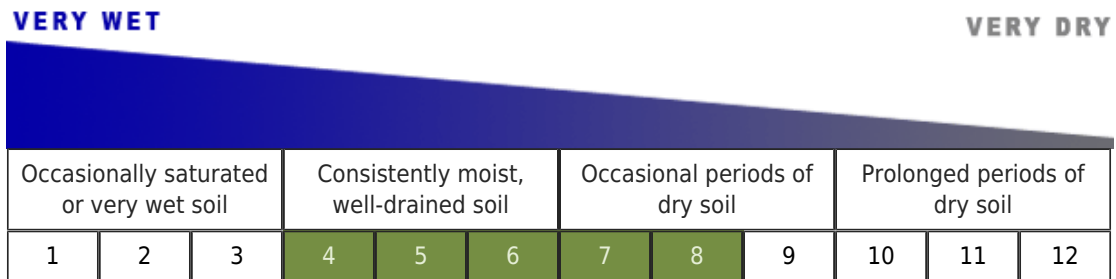
Bare Root Transplanting

Easy

Other

transplant in spring or fall; parentage: *T. cordata* x *T. dasystyla*

Moisture Tolerance



Cultivars for *Tilia x euchlora*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Laurelhurst	'Laurelhurst' - compact; pyramidal; straight trunk

Photos



Tilia x euchlora - Leaves, Fruit



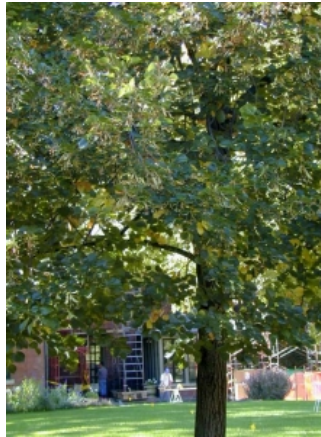
Tilia x euchlora - Leaves



Tilia x euchlora - Bark



Tilia x euchlora - Leaves, Fall Interest



Tilia x euchlora - Habit



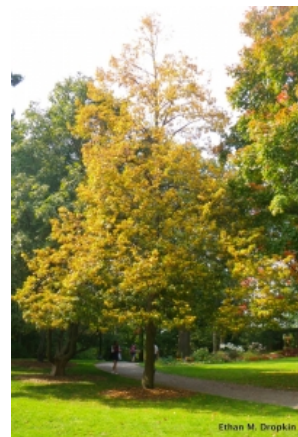
Tilia x euchlora - Habit



Tilia x euchlora - Bark



Tilia x euchlora - Leaf



Tilia x euchlora - Habit



Species: *Ulmus* 'Accolade'

Hybrid Elm 'Accolade'

Ornamental Characteristics

Size: Tree > 30 feet
 Height:
 Leaves: Deciduous
 Shape: Vase-shaped, arching, American Elm-like glossy
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 4b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: fast growing
 CU Structural Soil™: Yes

Insect Disease

Reportedly resistant to Elm Yellows, resistant to Elm Leaf Beetle

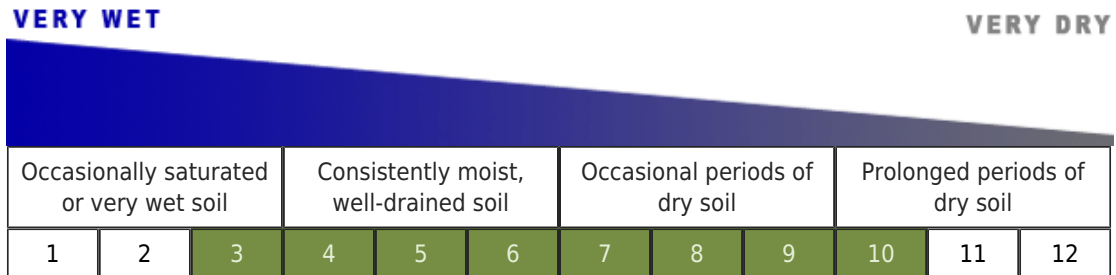
Bare Root Transplanting

Easy

Other

Parentage: *U. japonica* x *U. wilsoniana*

Moisture Tolerance



Photos



Ulmus 'Accolade' - Habit



Ulmus 'Accolade' - Habit



Ulmus 'Accolade' - Habit



Species: *Ulmus* 'Frontier'

Hybrid Elm 'Frontier'

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' height, 30' spread
 Leaves: Deciduous
 Shape: Broadly oval
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5a
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

Good resistance to Dutch elm disease and elm yellows (phloem necrosis); moderately resistant to elm leaf beetles.

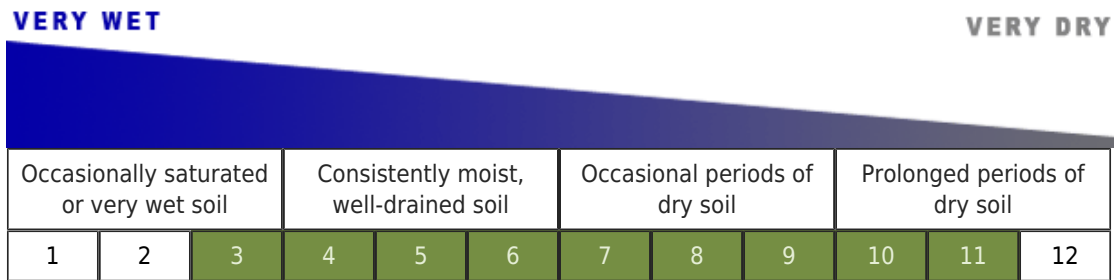
Bare Root Transplanting

Difficult

Other

Parentage: *U. carpinifolia* with *U. parvifolia*

Moisture Tolerance



Photos



Ulmus 'Frontier' - Habit



Ulmus 'Frontier' - Leaves, Fall Interest



Ulmus 'Frontier' - Habit, Fall Interest



Ulmus 'Frontier' - Leaves, Fall Interest



Species: *Ulmus americana*

(ul'mus a-mer-i-kay'nah)

American Elm

Cultivar Information

Much selection has been attempted for dutch elm disease resistant varieties of this long-prized native street/shade tree. Below are the best of the few resistant cultivars that have been yet discovered, however Elm Yellows is still a significant pest.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 60' - 80' (30' - 50' spread)
 Leaves: Deciduous
 Shape: majestic, upright-spreading
 Ornamental Other: withstands extreme cold

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 3a
 Soil Ph: Any
 Salt Tolerance: Tolerates salty soil
 Environmental Other: withstands extreme cold
 CU Structural Soil™: Yes

Insect Disease

susceptible to many pests, particularly dutch elm diseases, elm yellows, verticillium

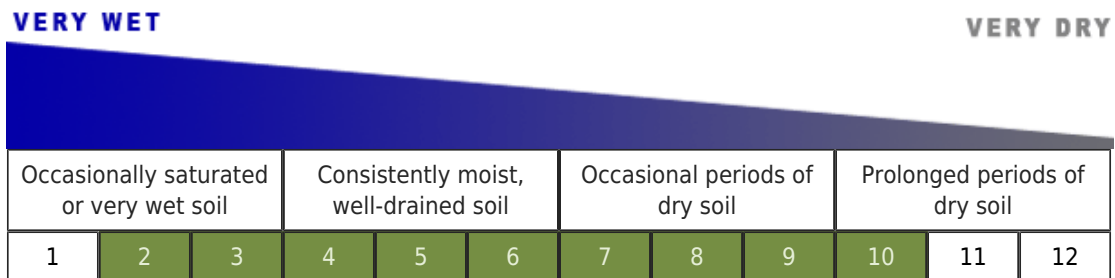
Bare Root Transplanting

Easy

Other

easy to transplant; fast growth, native to Eastern and Mid-West N. America

Moisture Tolerance



Cultivars for *Ulmus americana*Showing **1-3** of **3** items.

Cultivar Name	Notes
New Harmony	'New Harmony' - less resistant to dutch elm disease than 'Valley Forge'
Valley Forge	'Valley Forge' - resistant to dutch elm disease
Independence	'Independence' - a hybrid created from a cross of <i>Ulmus americana</i> 'Moline' and <i>Ulmus americana</i> W 185-21; it is one of six clones that comprise the much-heralded 'American Liberty' multi-clone variety; develops an upright, vase-shaped crown typical of the species; has demonstrated tolerance to DED, but may be quite susceptible to elm yellows (a relatively rare disease in the Midwest)

Photos



Ulmus americana - Leaves



Ulmus americana - Habit



Ulmus americana - Habit, Fall Interest



Ulmus americana - Leaves



Ulmus americana - Habit



Ulmus americana - Buds



Ulmus americana - Leaves



Ulmus americana - Leaves



Ulmus americana - Bark



Species: *Ulmus parvifolia*

(ul'mus par-vi-fo'lee-ah)

Chinese Elm; Lacebark Elm

Cultivar Information

Many cultivars of this species exist. The straight species has variable bark and pest/disease resistance. A new group of cultivars with good resistance to Dutch Elm disease, elm leaf beetle and elm yellows are becoming available.

Check winter hardiness of individual cultivars.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height: 40' - 75'
 Leaves: Deciduous
 Shape: round, vase
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 Environmental Other: leathery dark green leaves; gray/green/brown/orange exfoliating bark
 CU Structural Soil™: Yes

Insect Disease

resistant to Dutch Elm disease, elm yellows and other insect problems

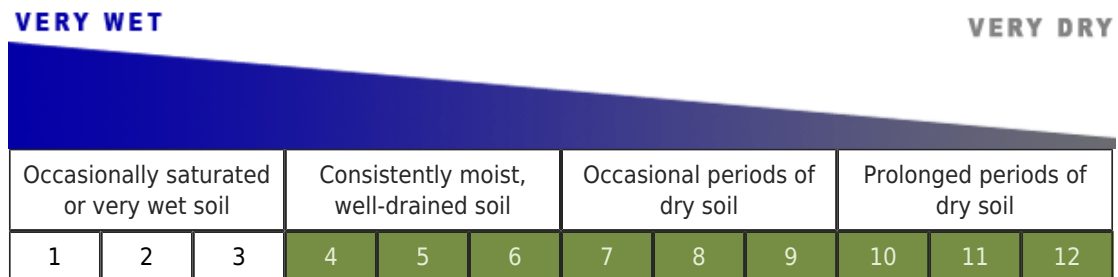
Bare Root Transplanting

Difficult

Other

transplant in spring or fall, native to China, Japan and Korea

Moisture Tolerance



Cultivars for *Ulmus parvifolia*

Showing 1-11 of 11 items.

Cultivar Name	Notes
Ohio	'Ohio' - moderately vase-shaped form; grows to 40' high and wide; looser and more open than most varieties; foliage turns dull red in autumn; samarae are reddish in color as well; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Dynasty	'Dynasty' -vase-shaped, upright form; inferior bark to the other cultivars; fall color can be red; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
King's Choice	'King's Choice' - early winter hardy selection; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Central Park Splendor	'Central Park Splendor' (a.k.a 'A. Ross Central Park', 'Aross/Central Park') - broadly-spreading form; selected from a tree growing in New York's Central Park for 100 years; thick, leathery deep green leaves turn yellow in fall; bark and fall color less showy than other cultivars; grows to 60' tall x 40' wide
Burgundy	'Burgundy' - new selection that has not been cultivation long enough to develop data on habit; heavy, dark green leaves turn reddish in fall; grows quickly; shows good peeling bark character
Drake	'Drake' (a.k.a. 'Brea') - not hardy north of USDA zone 7; semi-evergreen character
Emerald Isle	'Emerald Isle' (a.k.a. 'Athena', 'Emer I') - rounded form; drought tolerance; superior dark green foliage; inferior fall color; superior bark with orange lenticels; grows to 40' tall x 60' wide; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Emerald Vase	'Emerald Vase' (a.k.a. 'Emer II', Allee) - upright-spreading vase shaped form; grows to 70' tall x 60' wide; fluted trunk; superior bark; high quality foliage turns yellow in autumn; drought tolerant; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Golden Ray	'Golden Ray' (a.k.a. 'Golden Rey', 'Aurea') - upright-rounded form; light yellow young leaves that appear to deepen with age; superior bark; grows to 60' tall x 40' wide
Caitlin	'Caitlin' (a.k.a. 'Kaitlin') - miniature tree form; not as hardy as other cultivars; exfoliating bark; grows to 15' tall; other dwarf forms exist including 'Hokkaido', 'Stone's Dwarf', and 'Frosty' (variegated foliage)
Prairie Shade	'Prairie Shade' - upright-spreading form; although the plant is so new that no mature trees exist; good quality, heavy, dark green foliage; does not develop the peeling bark; susceptible to fungal disease; inferior to other forms

Photos



Ulmus parvifolia - Bark



Ulmus parvifolia - Bark



Ulmus parvifolia - Buds



Ulmus parvifolia - Habit



Ulmus parvifolia - Leaves, Seeds



Ulmus parvifolia - Habit



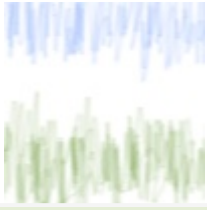
Ulmus parvifolia - Seeds



Ulmus parvifolia - Bark



Ulmus parvifolia - Leaves



Species: *Ulmus spp.*

Hybrid Elms

Cultivar Information

There are many hybrid elms with Dutch Elm Disease resistance and some with Elm Yellows resistance.

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet
 Height:
 Leaves: Deciduous
 Shape: Round to Vase shape
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: Any
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Salt Tolerance: Tolerates salty soil
 CU Structural Soil™: Yes

Insect Disease

All of these hybrids are Dutch Elm Disease resistant. Resistance to Elm Yellow and Elm Leaf Beetle is listed under the cultivars. See information under cultivars

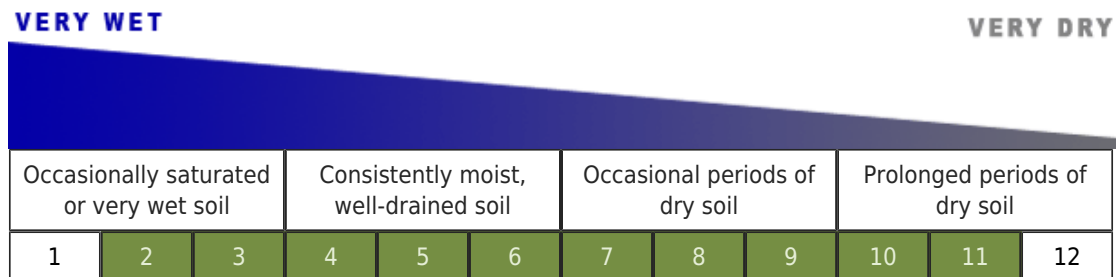
Bare Root Transplanting

Easy

Other

Elms are easy to transplant except for those hybrids that have *U. parvifolia* as one of the parents such as 'Frontier.'

Moisture Tolerance



Cultivars for *Ulmus* spp.Showing **1-2** of **2** items.

Cultivar Name	Notes
'Discovery'	Selection of <i>Ulmus davidiana</i> var, japonica. Resistant to Elm Yellows and Elm Leaf Beetle
Commendation ('Morton Stalwart')	Hybrid between (U. japonica x U wilsoniana) x (U.pumila x U carpinifolia) Reportedly resistant to Elm Yellows. Unknown resistance to Elm Leaf Beetle

Photos



Species: *Zelkova serrata*

(zel-koe'vah ser-ray'tah)

Japanese Zelkova; Saw-leaf Zelkova; Keaki Tree

Cultivar Information

Mostly tall trees except '**Schmidtlow**' (Wireless) and '**City Sprite**', which are <30.'

* See specific cultivar notes on next page.

Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet
 Height: 60' - 80', some cultivars <30'
 Leaves: Deciduous
 Shape: vase
 Ornamental Other:

Environmental Characteristics

Light: Full sun
 Hardy To Zone: 5b
 Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)
 Environmental Other: narrow crotch angles and poor branch attachment can cause splitting when older; dark green leaves turn yellow, bronze or reddish purple; cherrylike bark becomes gray and exfoliating when mature
 CU Structural Soil™: Yes

Insect Disease

No diseases listed

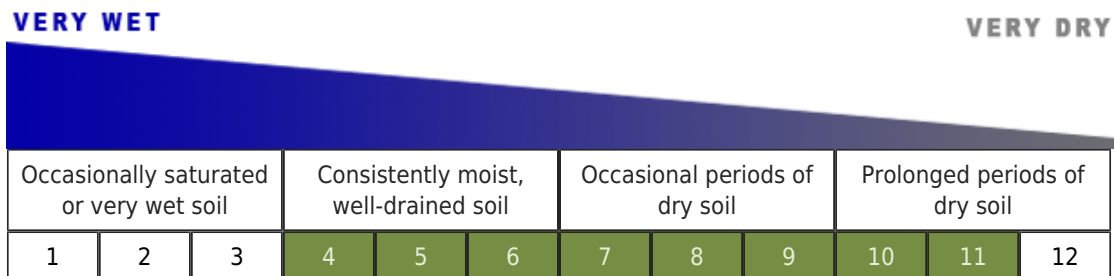
Bare Root Transplanting

Moderately difficult

Other

transplant in spring, native to Japan, Korea, Northern China, Taiwan

Moisture Tolerance



Cultivars for *Zelkova serrata*

Showing 1-9 of 9 items.

Cultivar Name	Notes
Green Vase	'Green Vase' - upright vase; fast grower; golden-orange fall color
Halka	'Halka' - upright vase-like form; most elm-like; better branch attachment; yellow fall color
Village Green	'Village Green' - vase; shorter than other cultivars; fast grower; rusty red fall color
Musashino	'Village Green' - vase-like form; shorter than other cultivars; fast grower; rusty red fall color
Schmidtlow	'Schmidtlow' (a.k.a. 'Wireless') - vase-shaped form; grows to 30' tall
City Sprite	'City Sprite' (a.k.a. 'JES-KW1') - oval to vase-shaped form; grows to 30' tall
Goshiki	'Goshiki' - variegated form, leaves splashed or dusted with creamy white
Variegata	'Variegata' - variegated form with white rimmed leaves; weak grower
Spring Grove	'Spring Grove' - vase-shaped, tight branching form; a rival for 'Village Green'; ornamentally superior; dark green leaves with red fall color; attractive peeling bark; grows to 80' tall x 60' wide

Photos



Zelkova serrata - Fruit



Zelkova serrata - Bark



Zelkova serrata - Leaves, Fall Interest



Zelkova serrata - Habit



Zelkova serrata - Habit



Zelkova serrata - Leaf



Zelkova serrata - Fruit



Zelkova serrata - Habit



Zelkova serrata - Leaves